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Title:
Perfect score:
Sequence:
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 200000000
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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Gapop 10.0 , Gapext 1.0
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11710.708 Million cell updates/sec
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2469
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1: gb_ba:*
2: gb_in:*
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SUMMARIES

18	17	16	15	14	13	12	11	10	9	80	7	6	S	4	ω	N	1	Result
2017	2018.6	2020.4	2025.2	2025.2	2025.2	2025.4	2027	2027	2028.8	2042.8	2051.2	2052	2052	2052	2415.4	2442.2	2469	Score
81.7	81.8	81.8	82.0	82.0	82.0	82.0	82.1	82.1	82.2	82.7	83.1	83.1	83.1	83.1	97.8	98.9	100.0	Query
9167	9189	9785	2306	2306	2306	9194	12411	9194	9169	9788	9166	2312	2312	2312	2457	2463	2469	Length
σ	6	6	6	6	σ	6	σ	σ	σ	6	0	6	6	σ	თ	σ	σ	B
AX427933	AX427921	AX427938	AR373387	CQ870574	BD263704	AX427926	AX427927	AX427925	AX427931	AX427936	AX427930	AR373389	CQ870576	BD263706	AX455916	AX455915	AX455914	ID
AX427933 Sec	AX427921 Sec	AX427938 Sec	AR373387 Sec	CQ870574 Sec	BD263704 Imp	AX427926 Sec		AX427925 Sec	AX427931 Sec	AX427936 Sec	AX427930 Sec	AR373389 Sec	CQ870576 Sec	BD263706 Imp	AX455916 Sec	AX455915 Sec	AX455914 Sec	Description
Sequence	Sequence	Sequence	Sequence	Sequence	Improved	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Improved	Sequence	Sequence	Sequence	1 1 1 1 1

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45	44	43	42	41	40	9	38	37	36	<u>5</u>	₩ 4	ω ω	32	3	30	29	28	27	26	25	24	23	22	21	20	19
1837	1858	1858	1858	1879.2	1880.8	1892.2	1901.8	1905.8	1907	1958.8	1958.8	1969.4	1969.4	1969.4	1982.4	1998.4	1998.4	1998.4	1999	2015.6	2017	2017	2017	2017	2017	2017
74.4	75.3	75.3	75.3	76.1	76.2	76.6	77.0	77.2	77.2	79.3	79.3	79.8	79.8	79.8	80.3	80.9	80.9	80.9	81.0	81.6	81.7	81.7	81.7	81.7	81.7	81.7
1965	2305	2305	2305	7897	7344	1977	4341	4343	2577	4352	4352	4319	4319	4319	3009	2300	2300	2300	3015	4353	36066	9792	9790	9783	9782	9170
ð	σ	σ	σ	σ	σ	σ	σ	σ	σ	11	11	σ	ð	δ	თ	σ	σ	9	σ	11	0	σ	6	σ	0	σ
AX455952	AR373385	CQ870572	BD263702	AX427923	CS078948	AX455954	AX306429	AX306428	AX457088	AY789509	AF287352	AR373322	CQ870498	BD263639	AX455987	AR373388	CQ870575	BD263705	AX455946	AF287353	CS078956	AX427932	CS078943	AX427934	AX427935	AX427928
AX455952 Sequence	AR373385 Sequence	CQ870572 Sequence	BD263702 Improved	AX427923 Sequence	CS078948 Sequence			AX306428 Sequence		AY789509 Synthetic	AF287352 Synthetic	AR373322 Sequence	CQ870498 Sequence		AX455987 Sequence	AR373388 Sequence	CQ870575 Sequence		AX455946 Sequence	AF287353 Synthetic	CS078956 Sequence	AX427932 Sequence	CS078943 Sequence	-	-	AX427928 Sequence

ALIGNMENTS

Qy 1	Qy 1	Db	Ş.	Db	S.	Query Match Best Local Sir Matches 2469;	ORIGIN			FEATURES		JOURNAL	TITLE	AUTHORS	REFERENCE	ORGANISM	SOURCE	VERSION	ACCESSION	LOCUS	RESULT 1 AX455914
181 GGCCACCAGATGAAGGACTGCACCGAGCGCCAAGTTCTTCCGCGAGGACCTGGCC 240	121 CACATCGCCCGCAACTGCCGCGCCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAG 180	61 CGCAGCDACTTCAAGGGCCCCAAGCGCATCATCATGCTTCAACTGCGGCAAGGAGGGC 120	61 CGCAGCAACTTCAAGGGCCCCAAGCGCATCAAGTGCTTCAACTGCGGCAAGGAGGGC 120	1 GTCGACGCCACCATGGCCGAGGCCATGAGCCAGCGCCCACCACCATCCTGATGCAG 60	1 GTCGACGCCACCATGGCCGAGGCCATGAGCCAGGCCAACCATCCTGATGCAG 60	Query Match 100.0%; Score 2469; DB 6; Length 2469; Best Local Similarity 100.0%; Pred. No. 6.7e-204; Matches 2469; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		/mol type="unassigned DNA" /db_xref="taxon:32630" /note="pp975(+)"	/organism="synthetic construct"	Location/Qualifiers	CHIRON CORPORATION (US); University of Stellenbosch (ZA)	polypeptides and uses thereof Patent: WO 0204493-A 30 17-JAN-2002;	Polynucleotides encoding antigenic hiv type c polypeptides,	zur Megede, J., Barnett, S.W., Engelbrecht, S. and van Rensburg, E.	other sequences; artificial sequences. 1	synthetic construct	synthetic construct	AX455914.1 GI:21714899	20 110111	AX455914 2469 bp DNA Linear PAT 06-JUL-2002	

1261 CAGCACCGCGCCAAGATCGAGGAGCTGCGC	1201 GAGATCGTGATCTACCAGTACATGGACGAC	1141 CCCAGCATCTTCCAGAGCAGCATGACCAAGATCCTGGAGCCCTTCCGCGCCCGCAA	1081 AACGAGACCCCCGGCATCCGCTACCAGTAC	1021 AGCGTGCCCCTGGACGAGGACTTCCGCAAG	961 CCCGCCGGCCTGAAGAAGAAGAAGACGTGACCGTGCTGGACGTGGCGACGCCTA	901 TTCCGCGAGCTGAACAAGCGCACCCAGGAC	841 AACACCCCCGTGTTCGCCATCAAGAAGAAGACAGAGACAGAGACAGAGACAGAGAAGAAG	781 ATCTGCGAGGAGATGGAGAAGGAGGGCAAG	721 GACGGCCCCAAGGTGAAGCAGTGGCCCCTGACCGAGGAGAAGATCAAGGCCCTGAC	661 ACCCTGAACTTCCCCATCAGCCCCATCGAG	601 CTGATCGGCCCCACCCCCGTGAACATCATCGGCCGCAACATG	541 GTGCGCCAGTACGACCAGATCCTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTG	481 ATGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGCGATCGGCGGCGCTTCATCAAG	421 GGCGGCCAGATCAAGGAGGCCCTGCTGGACACCGGCGCCGACGACACACAGGCGCCTGCTGGACACCGGCGCCGACGACACAGGAGCCCTGCTGGACACCGGCGCCGACGACACA	361 GGCACCCTGAACTTCCCCCAGATCACCCTGTGGCAGCGCCC	301 AGCCGCGAGCTGCAGGTGCGCGGCGACAACCCCCGCAGCGAGCCGAGCCGAGCGCCAG	241 TTCCCCCAGGGCAAGGCCCGCGAGTTCCCCC	181 GGCCACCAGATGAAGGACTGCACCGAGCGC
CAGCACCGCGCCAAGATCGAGGAGCTGCGCAAGCACCTGCTGCGCGCTGGGGGCTTCACCACC 1320	GAGATCGTGATCTACCAGTACATGGACGACCTGTACGTGGGCAGCGACCTGGAGATCGGC 1260	CCCAGCATCTTCCAGAGCAGGATGACCAAGATCCTGGAGCCCTTCCGCGCCCGCGAACCCC 1200 	AACGAGACCCCCGGCATCCGCTACCAGTACAACGTGCTGCCCCAGGGCTGGAAGGGCAGC 1140	AGCGTGCCCCTGGACGAGGACTTCCGCAAGTACACCGCCTTCACCATCCCCAGCATCAAC 1080	CCCGCCGGCCTGAAGAAGAAGAAGAGCGTGACCGTGCTGGACGTGGGCGACGCCTACTTC 1020	TTCCGCGAGCTGAACAAGCGCACCAGGACTTCTGGGAGGTGCAGCTGGGCATCCCCCAC 960	AACACCCCCGTGTTCGCCATCAAGAAGAAGGACAGCACCAAGTGGCGCAAGCTGGTGGAC 900 	ATCTGCGAGGAGATGGAGGAGGGGCAAGATCACCAAGATCGGCCCCGAGAACCCCTAC 840	GACGGCCCCAAGGTGAAGCAGTGGCCCCTGACCGAGGAGAAAATCAAGGCCCTGACCGCC 780	ACCCTGAACTTCCCCATCAGCCCCATCGAGACCGTGCCCGTGAAGCTGAAGCCCGGCATG 720	CTGATCGGCCCCACCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGC 660	CTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTG 600	GATGATCGGCGGCATCGGCGCGCTTCATCAAG 540 	GGCGGCCAGATCAAGGAGGCCCTGCTGGACACCGGCGCGACGACACCGTGCTGGAGGAG 480	GGCACCCTGAACTTCCCCCAGATCACCCTGTGGCAGCGCCCCCTGGTGAGCATCAAGGTG 420	CCCCCGCAGCGAGGCCGAGCGCCAG 360	TTCCCCCAGGGCAAGGCCCGCGAGTTCCCCAGCGAGCAGAACCGCGCCAACAGCCCCACC 300	GGCCACCAGATGAAGGACTGCACCGAGGCCAAGCTTCTTCTCGCGAGGACCTGGCC 240
Qy Db	p &	} B &	å å	d dy	dd Ab	B 5	₽ Q	? B &	?	9	P 5	₽ 5	₽ 2 ⁄	₽ &	B 8) B &	? 5	δ E
2341 CGCAAGGTGCTGTTCCTGGACGGCATCGATGGCGGCATCGTGATCTACCAGTACATGGAC 2400	CCCGCCCACAAGGCATCGGCGGCAACGAGCAGATCGACAAGCTGGTGAGCAAGGGCATC	CTGGTIGAACCAGATCATCGAGCAGCTIGATCAAGAAGGAGAAGGTIGTACCTIGAGCTIGGGTIG	ACCGACAGCCAGTACGCCCTGGGCATCATCCAGGCCCAGCCGACAAGAGCGAGAGCGAGAGCGAGAGCGAGAGCGAGAGCGAGAGCGAGAGCGAGAGCGAGAGCGAGAGAGCGAGAGAGCGAGAGAGCGAGAGAGCGAGAGAGCGAGAGAGCGAGAGAGCGAGAGAGCGAGAGAGCGAGAGAGCGAGAAGA	1 ACCGAGCTGCAGGCCATCCAGCTGGACCTGCAGGACAGGGCAGCGAGGTGAACATCGTG	TROGTIGACCGACCGGGGCCGGCAGAAGATCGTGAGCCTGACCGAGACCACCAACCA	GCGAGACCTICTACGTGGACGGGCCGCCAACGGCGAGACCAAGATCGGCAAGGCCGGCGAGACCTTCTACGTGGACGGCGCGCCCAACGGCGAGACCAAGATCGGCAAGGCCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCTAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGAGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGGCGAGACCAAGATCGGCAAGACCGAGACACAAGATCGGCAAGACCGAGAGACCAAGATCGGCAAGACCGAGACCAAGATCGGCAAGACCGACGAGACCAAGATCGGCAAGACCGACGAGACCAAGACCGCGAGAGACCAAGATCGGCAAGACCGACGAGACCAAGATCGGCAAGACCGACGAGACCAAGACACAAGATCGGCAAGACCGACGACAAGACACAAGATCGGCAAGACCAAGATCAAGATCGGCAAGACCAAGACACAAGACACAAGACAAGACAAGACAAGACAAGACAAGACAAGACAAGACAAGACAAGACAAGACAAGACAAGAACAAGAACAAGAACAAGAACAAGAACAAGAACAAGAACAAAGAACAAAGAACAAAAAA	GIGAACACCCCCCCIGGTGAAGCTGTGGTACCAGCTGGAGAAGGAGCCCATCATCGTGGTGAACACCCCCCCC	ACCIOGRAPACCIOGIOGRACCACTACACACCICO ACCIOGRATICACCO ACCIOGRATICACCO ACCIOGRATICACCO ACCIOGRATICACCO ACCIOGRATICACCO ACCIOGRATICA ACCIOCA ACC	ATGAGAGCATCGTGATCTGGGGCAAGACCCCCAAGTTCCGCCCATCCAGAAGGAG	ATGCGCACCGCCCACCACCGACGACGTGAAGCAGCTGACCGAGGCCGTGCAGAAGATCGCCC	TIGARCETACCAGATETACEAGGAGECETTEAAGAACETGAAGACEGGEAAGTACGCEAAG	GTGTACTACGACCCAGCAAGGACCTGGTGGCCGAGATCCAGAGCAGCAGCACCAG 	GAGGAGGCCGAGCTGGAGCTGGCCGAGAACCGCGAGATCCTGCGCGAGCCCGTGCACGGC	ol CGCCAGCTGTGCAGGCTGCTGCGCGGGGCCAAGGCCCTGACCGACATCGTGCCCCTGACC	ATCCAGAAGCTGGTGGGCAAGCTGAACTGGGCCAGGTCTACCCCGGCATCAAGGTG			1321 CCCGACAAGAAGCACCAGAAGGAGCCCCCCTTCCTGTGGATGGGCTACGAGCTGCACCCC 1380

Db 301 ÁdCCGCÁGÁGCTGCÁGGTGCÁACAACCCCCGCAGACGAGGCAGAGCCÁGAGCCÁGGCAGAGCAACCCAGACCAGACCAGACCAGACCAGACCAGACCAACCCCAGATCAACCTCCCCCAGATCACCCTGTGGCAGCCCCCCTGGTGAGCATCAAGGTG 420 361 GGCACCCTGAACTTCCCCCAGATCACCCTGTGGCAGCGCCCCCTGGTGAGCATCAAGGTG 420 421 GGCGGCCAGATCAAGGAGGCCCTGCTGGACAACCGACCACCGTGCTGAGGAG 480 421 GGCGGCCAGATCAAGGAGGCCCTGCTGGACACCGGCGCCGACGACACCGTGCTGAAGGAG 480 421 GGCGGCCAGATCAAGGAGGCCCTGCTGGACACACCGACCACCGTGCTGAAGGAG 480 421 GGCGCCAGATCAAGGAGGCCCTGCTGGACACACCGGCGCTTCATCAAG 480 421 GGCGGCCAGATCAAGGAGGCCCTAGTGGAACACCGGCGCGTTCATCAAG 540 481 ATGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAG 540 481 ATGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAG 540	181 GCCACCAGATGAAGGACTGCACCAAGGCCAAGGCCCAACCAGCCCAACCAGACCCCAACCAGACCCCAAGGACCCCAACCAACAA	Oy 61 GCGCAGCAACTTCAAGGGCCCCAAGCGCATCATCATCAACTGCGCAAGGAGGGC 120 61 CGCAGCAACTTCAAGGGCCCCAAGCGCATCATCAACTGCGCAAGGAGGGC 120 61 CGCAGCAACTTCAAGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGCAAGGAGGGC 120 Oy 121 CACATCGCCCGCAACTGCCGCCCCCCCCCAAGAAGAAGGGCTGCTGGAAGGAA	Query Match 98.9%; Score 2442.2; DB 6; Length 2463; Best Local Similarity 99.6%; Pred. No. 1.4e-201; Matches 2460; Conservative 0; Mismatches 3; Indels 6; Gaps 1 GTCGACGCACCATGGCCGAGGCCATGAGCCACCAGCGCCAACATCCTGATGCAG	AUTHORS zur Megede, J., Barnett, S.W., Engelbrecht, S. and van Renaburg, E. TITLE Polymucleotides encoding antigenic hiv type c polypeptides, polypeptides and uses thereof JOURNAL Patent: WO 0204493-A 31 17-JAN-2002; CHIRON CORPORATION (US); University of Stellenbosch (ZA) FEATURES Location/Qualifiers Source 1. 2463 /organism="synthetic construct" /mol_type="unassigned DNA" /db_xref="taxon:32630" /note="PR975YM" ORIGIN		QY 2401 GACCTGTACGTGGGCAGCGGCCGTAGGATCGATTAAAAGCTTCCCGGGGCTAGCACC 2460
B	B & B & B	Q D Q	8	p	QY DB QY	Q
ATCCAGAAGCTGGTGGGCAAGCTGAACTGGGCCAGATCTACCCCGGCATCAAGGTG	1255 CÁGCACCAGCACCAGAAGATCGAGGAGCTGCGCAGAAGCACCTGCTGCTGCGCTGCAGCACCACCACCACCACCACCACCACCACCAGCAAGCAACCAGCAG	1141 CCCAGCATCTTCCAGAGCAGCATGACCAAGATCCTGGAGCCCTTCCGCGCCCCGCAACCCC 1200 1201 GAGATCCTGATCTACCAGTACATGGACGACCTGTACGTGGCACCTGGAGATCGGC 1260 1201 GAGATCCTGATCTACCAGGCCCCCCTGTACGTGGGCAGCTGGAGATCGGC 1254 1201 GAGATCGTGATCTACCAGGCCCCCCCTGTACGTGGGCAGCCTGGAGATCGGC 1254 1261 CAGCACCGCGCCAAGATCGAGGAGCTGCGCAAGGCACCTGGTGGGGCTTGACCACC 1320	1021 AGCGTGCCCTYGGAGGAGTACCGCAAGTACACCGCCTTCACCATCCCCAGCATCAAC 1080	ACCCCCCGGTGTTCGCCATCAAGAAGAAGACAGCCCAAGTGCCCAAGTGCACAAGCCCCAAGCTGCTGACACAAGCCCCCGTGTTCGCCATCAAGAAGAAGAAGAAGAAGAACAAGCCCCAAGTGCCCAAGCTGCTGACACAAGAAGAAGAAGAAGAAGAAGAACACCCCCGCAAGCTGCTAACAAGAAGAAGAAGAAGAAGAAGACTTCTGGGAAGCTGAGCTGAGCATCCCCCACCCCCCCGCCGCAGCCTGAACAAGACGACCCAAGACTTCTGGGAAGGTGCAACTTCCCCACCCCACCCCCACCCCAAGCCTGAACAAGAAGAAGAAGAAGAAGAAGACCTTGAACCACGTGCTGGACGTGGGCAACGCCTACTTCCCCGCCGGCCTGAAGAAGAAGAAGAAGAAGAAGACCTTGAACCGTGCTGGACGTGGGCGAACGCCTACTTCCCCGCCCG	661 ACCCTGAACTTCCCCATCAGCCCCATCGAGACCGTGAAGCTGAAGCTCGAGACCCGGCATG 720	541 GTGCGCCAGTACGACCAGATCCTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTG 600

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                        synthetic construct
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other sequences; artificial
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Sequence 32 from Patent

AX455916

AX455916.1 GI:21714901
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PD 08-OCT-2002 PP 30-DEC-1999 UP 2000591193 PR 31-DEC-1998 US 60/114495,01-DEC-1999 US 60/168471 PI SUSAN BARNETT,JAN ZUR MEGEDE,INDRESH SRIVASTAVA,YING LIAN, PI KARIN HARTOG, FI HONG LIU, CATHERINE GREER,MARK SELBY,CHRISTOPHER WALKER PC C12N15/09,A61K31/711,A61K38/00,A61K48/00,A61P31/18,A61P37/02, PC C12N5/10, PC C12N7/00,C12P21/02,C12N15/00,C12N5/00,A61P31/18,A61P37/02 CC Description of Artificial Sequence: FS(-).protmod.RTopt(+) FH Key Location/Qualifiers FT source /organism='Artificial Sequence'. FEATURES Location/Qualifiers	ACCESSION BD263706 ACCESSION BD263706.1 GI:33073474 VERSION BD263706.1 GI:33073474 VERSION BD263706.1 GI:33073474 KEYMORDS JP 2002533124-A/73. SOURCE Synthetic construct other sequences; artificial sequences. REFERENCE 1 (bases 1 to 2312) AUTHORS Barnett,S., Megede,J.Z., Srivastava,I., Lian,Y., Hartog,K., Liu,H., Greer,C., Selby,M. and Walker,C. TITLE Improved expression of HIV polypeptides and production of virus-like particles JOURNAL CHIRON CORP COMMENT OS Artificial Sequence PN JP 2002533124-A/73	<u> </u>			Db 1909 GTGAACACCCCCCCCTGGTGAAGCTGTGĠTAACAGCTGGAGAAGGAGGCCAATCATCGGC 1968 Qy 1981 GCCGAGACCTTCTACGTGGACGGCGCCCAACCCAAGATCGGCAAGGCCGGC 2040

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344 CCGGCGCGAGGGCCAGGGCACCCTGAACTTCCCCCAGATCACCCTGTGGCAGC 397	230 AGGACCTGGCCTTCCCCCAGGGCAAGGCCCGCGAGTTCCCCCAGCGAGCAGAACCGCGCCA 289 [y Match Local Similar: hes 2165; Con: 170 GCGGCAJ 1 GCGGCCAJ	FEATURES SOUTCE 1. 2312 /organism="synthetic construct" /mol type="unassigned DNA" /db_xref="taxon:32630" /note="Description of Artificial Sequence: FS(-).protmod.RTopt(+)" ORIGIN		CQ870576 CQ870576 CQ870576 CQ870576 DEFINITION Sequence 84 from Patent EP1433851. ACCESSION CQ870576 VERSION CQ870576 VERSION CQ870576.1 GI:52000092 KEYWORDS Synthetic construct SOURCE Synthetic construct	2438 AAAAGCTTCCCGGGGCTAGCACCGGTGAATTC 2469	2161 ACAAGCTGGTGAGCGCCGCATCCGCAAGGTGCTGTTCCTGAACGGCATCGATGGCGCA 2220 2378 TCGTGATCTACCAGTACATGGACGACCTGTACGTGGCAGCGCGCCTAGGATCGATT 2437	2236 AGANGSTERACLIGNOSTICCUSCUM AMOSSICATUS COGLEGATA CONSCIENT CO 2317 [1 AGENCIGACAAGAGCGAGAGCGAGCTGGTGAGCCAGATCATCGAGCAGCTGATCAAGAAGG 9 AGANAGGTGTATACCTGAAGAGCGAGAGCTGGTGAGAAGCAGATCATCGAGCAGCTAAATCAAGAAGG
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                                                                                                                                  TGGAGAAGGAGCCCATCATCGGCGCCGAGACCTTCTACGTGGACGGCGCCGCCCAACCGCG
                                                                                                                                                                                             CCTGGATCCCCGAGTGGGAGTTCGTGAACACCCCCCCCCTGGTGAAGCTGTGGTACCAGC
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TCGCCGACACCACCAACCAGAAGACCGAGCTGCAGGCCATCCACCTGGCCCTGCAGGACA
                 TGACCGAGACCACCAGAAGAGACCGAGCTGCAGGCCATCCAGCTGGCCCTGCAGGACA
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REFERENCE
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AX427930
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Modifications of hiv env, gag, and po
genetic immunization
Patent: WO 0232943-A 168 25-APR-2002;
GOVERNMENT OF THE UNITED STATES (US)
LOCATION/Qualifiers
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synthetic construct
other sequences; artificial
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              AGGACTGCACCGAGCGCCAGGCCAACTTCTTCCGCGAGGGACCTGGCCTTCCCCCAGGGCA
                                                        ACTGCCGCGCCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGGCCACCAGATGA
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AGGACTGCACCGAGCGACAGGCTAA-TTTTTTAGGGAAGATCTGGCCTTCCCCACAAGGGA
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                                                                                                                                                                                                                                                                                                                       /organism="synthetic construct"
|mol_type="unassigned DNA"
|db_xref="taxon:35630"
|/note="plasmid pVR1012x/s containing
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RESULT 8 AX427936 LOCUS AX427936 DEFINITION Sequence 174 from Patent WO0232943.	Qy 2282 CCGCCCCACAGGGCATCGGCGGCAACGAGCAGATCAAAGCTGGTGAGCAAGGCATCC 2341 Cy 2141	2222 TGGTIGAACCAGATCATCGAGCAGCTGATCAAGAAGGAGAGAGGTGTACCTGAGCTGGGTGC		QY 2042 ACGTGACCGACCGGCGGCGGCAGAAGATCGTGAGCCTGACCGAGACACCAACCA	Qy 1982 CCGAGACCTTCTACGTGGACGGCGCCGACGACGACCAAGATCGGCAAGGCCGGCT 2041	Qy 1922 TGAACACCCCCCCCCTGGTGAAGCTGTGGTACCAGCTGGAGAAGGAAG	Qy 1862 CCTGGGAGACCTGGTGGACCGACTACTGGCAGGCCACCTGGATCCCCGAGTGGGAGTTCG 1921	Qy 1802 TGGAGAGCATCGTGATCTGGGGCAAGACCCCCAAGTTCCGCCTGCCCATCCAGAAGGAGA 1861	Qy 1742 TGCGCACCGCCCACACCAACGACGTGAAGCAGCTGACGGAGGCCGTGCAGAAGATCGCCA 1801	Qy 1682 GGACCTACCAGATCTACCAGGAGCCCTTCAAGAACCTGAAGACCGGCAAGTACGCCAAGA 1741	Qy 1622 TGTACTACGACCCCAGCAAGGACCTGGTGGCCGAGATCCAGAAGCAGGGCCACGACCAGT 1681	Qy 1562 AGGAGGCCGAGCTGGAGCTGGCCGAGATCCTGCGCGAGACCCGTGCACGGCG 1621	Qy 1502 GCCAGCTGTGCAAGCTGCTGCGCGGCGCCAAGGCCCTGACCGACATCGTGCCCCTGACCG 1561	Qy 1442 TCCAGAAGCTGGTGGGCAAGCTGAACTGGGCCAGCCAGATCTACCCCGGCATCAAGGTGC 1501	Qy 1382 ACAAGTGGACCGTGCAGCCCATCGAGCTGCCCGAGAAGGAGAGGCTGGACCGTGAACGACA 1441

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542 TGCGCCAGTACGACCAGATCCTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTGC 601	GCGGCCAGATCAAGGAGGCCCTGCTGGACACCCGGCGCCGACGACACCGTGCTGGAGGAGA	314 AGGTGCGCGGCGACAACCCCCGCAGCGAGCCGGCGCGAGCGCCAGGGCA 364	3141 AGGACTGCACCGAGCGACAGGCTAATAGGGAAGATCTGGCCTTCCCACAAGGGA 3194 254 AGGCCGCGAGTTCCCCAGCAGCAGAACCGCGCCAACAGCCCACCAGCCGGAGCTGC 313	134 ACTGCCGCGCCCCCCGAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGCCACCAGATGA 193		tch al s 2197		Huang, Y. and Nabel, G.J. Huang, Y. and Nabel, G.J. Modifications of hiv env, gag, and pol enhance immunogenicity for genetic immunization genetic immunization Patent: WO 0232943-A 174 25-APR-2002; GOVERNMENT OF THE UNITED STATES (US) LOCATION COUNITED STATES	synthetic construct M synthetic construct other sequences; artificial sequences.	AX427936 AX427936.1 GI:21538023
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1682 GGACCTACCAGATCTACCAGGAGCCTTCAAGAACCTGAAGACCGGCAAGTACGCCCAAGAAGATCGCCAAGAAGATCGCCAAGAAGATCGCCAAGAAGAACCTGAAGACCTGAAGACCTGAAGACCAGGAAGTACGCCAAGAAGAAGAACGAAGAAGAAGAAGAAGAAGAAGA	1502 GCCAGCTGTGCAAGCTGCTGGCGGGGGCGCCAAGGCCCTGACCGACTGTGCCCCTGACCG 1501 GCCAGCTGTGCAAGCTGCTGCGGGGGGGCCCAAGGCCCTGACCGACGTGCCCCTGACCG 1514 HILLIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHI	4335 ACAAGTGGACCGTGCAGCCATCGTGCTGCCCGAGAAGGACAGCTGGACCGTGAACGACA 4394 1442 TCCAGAAGCTGGTGGGCAAGCTGAACTGGGCCAGCCAGATCTACCCCGGCATCAAGGTGC 1501	CGACAAGAAGCACCAGAAGGAGCCCCCCTTCCTGTGGATGGGCTACGAGCTGCAACCCCGCCCG	ACATOMIC CONTROL CONTR	4035 ACGAGACCCCCGGCATCCCACCACCACTACCACTGCCCCCAGGGCTGGAAGGGCAGCC 4094 1142 CCAGCATCTTCCAGAGCAGCATGACCAAGATCCTGGAGCCCTTCCGCGCGCG	GCGTGCCCCTGGACGAGGACTTCCGCAAGTACACCGCCTTCACCATCCCCAGCATCAACA	3855 TCCGCCAGCTGAACAAGCCCCAGGACTTCTGGGAAGGTGCAGCTGGGCATCCCCCACC 3914 962 CCGCCGGCCTGAAGAAGAAGAAGAAGCTGACCGTGGTGGACGTGGGCGACGCCTACTTCA 1021	842 ACACCCCCGTGTTCGCCATCAAGAAGAAGAACAGCACCAAGTGGCCCAAGCTGGTGGACT 901	782 TCTGCGAGGAGATGGAGAAGGAGGGCAAGATCACCAAGATCGGCCCCGAGAACCCCCTACA 841	3675 ACCICCAAGGTGAAGCAGTGGCCCCTGACCGAGGAGAAGATCAAGGCCCTGGTGGAGA 3734

Query Match 82.2%; Score 2028.8; DB 6; Length 9169; Best Local Similarity 91.7%; Pred. No. 3.1e-166; Matches 2194; Conservative 0; Mismatches 182; Indels 16; Gaps 4; Qy 14 TGGCCGAGGCCATGAGCCAGGCCACCAGCGCCAACATCTGATGCAGCGCAGCAACTTCA 73	AUTHORS Huang, Y. and Nabel, G.J. TITLE Modifications of hiv env, gag, and pol enhance immunogenicity for genetic immunization JOURNAL Patent: WO 0232943-A 169 25-APR-2002; GOVERNMENT OF THE UNITED STATES (US) FEATURES Location/Qualifiers Source 1. 9169 /organism="synthetic construct" /mol_type="unassigned DNA" /db_xref="taxon:32630" /note="plasmid pVR1012x/s containing HIV genes" ORIGIN	RESULT 9 AX427931 LOCUS DEFINITION Sequence 169 from Patent WO0232943. ACCESSION AX427931 VERSION AX427931.1 GI:21538018 KEYWORDS SOURCE ORGANISM Synthetic construct Other sequences; artificial sequences. REFERENCE 1	Db 5235 CCGCCCACAAGGGCATCGGCGCAACAAGGCAGGTGGACGGCCTGGTGAGCGCCGGCATCC 5294 Qy 2342 GCAAGGTGCTGTTCCTGGACGGCATCGATGGCGGCATCTACCAGTA 2393	Qy 2222 TGGTGAACCAGATCATCGAGCAGCTGATCAAGAAGGAGAAGGTGTACCTGAGCTGGGTGC 2281		Qy 2042 ACGTGACCGAGCGGGGCCGGCAGAAGATCGTGAGCCTGACCGAGACCACCAACCA	Db 4875 TGAACACCCCCCTGGTGAAGCTGGTGCTGCTGGAGAAGGAGCCCATCATCGGCG 4934 Oy 1982 CCGAGACCTTCTACGTGGACGGCGCCCAACCGCGAGACCAAGATCGGCAAGGCCGGCT 2041	Db 4755 CCGAGAGCATCCTGGACCAGACCCCCCAAGTTCAAGCTGCCATCCAGAAGGAGA 4814 Qy 1862 CCTGGGAGACCTTGGTGGACCGACTACTGGCAGCCACCTGGATCCCCGAGTGGGAGTTCG 1921 Db 4815 CCTGGGAGGCCTGGTGGACCGAGTACTGGCAGGCCACCTGGATCCCCGAGTGGGAGTTCG 4874 Qy 1922 TGAACACCCCCCCCTTGGTGAAGGTGTGGTACCAGCTGGAGAAGGAGCCCATCATCGGCG 1981
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1022 GCGTGCCCCTGGACGAGGACTTCCGCAAGTACACCGCCTTCACCATCCACCATCCAAGATCAACA 1081	842 ACACCCCCGTGTTCGCCATCAAGAAGAAGAACAGCACCAAGTGGCCCAAGCTGGTGGACT 901	662 CCCTGAACTTCCCCATCAGACCCTGACCCCGTGAACCTGAAGCCCGGCATGG [3503 TGGGCCAGTACGACCAGATCCTGATCGAGCCACAAGGCCACAAGGCCATCGGCACCGTGC 3562 602 TGATCGGCCCCACCCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGCA 661	482 TGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGCTTCATCAAGG 541	TATECTTTAGCTTCCCTCAGATCACTCTTTGGCAGCGACGACGACACACATAAAGATAA 3382 422 GCGGCCAGATCAAGGAGCCCTTGCTGGACACCCGACGACGACCACCGTGCTGGAGAGA 481	314 AGGTGCGCGGCGACAACCCCCGCAGCGACGCGCCGCGGCGCCGAGCGCCAAGGCCA 364	3144 AGGACTGCACCGAGCGACAGGCTAA-TTTTTTTAGGGAAGATCTGGCCTTCCCACAAGGGA 3202 254 AGGCCCGCGAGTTCCCCACGAGCAGAACCGCCCAACAAGGCCCCACCAGCCGCGAGCTGC 313	3027 AGGGCCAGAAGCGCATCAAGTGCTTCAACTGCGGCAAGGAGGGCCACCTGGCCCGCA 3083 134 ACTGCCGCGCCCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAAGGAGGGCCACCAGATGA 193

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•	2162 CCGACAGCCAGTACGCCCTGGGCATCATCCAGGCCCAGCCCGACAAGAGCGAGAGAGCGAGC	
	2102 CCGAGCTGCAGGCCATCCAGCTGGCCCTGCAGGACAGCGGCGAGCGA	
	2042 ACGTGACCGGGGCCGGCAGAAGATCGTGAGCCTGACCGAGACCACCAACCA	
	1982 CCGAGACCTTCTACGTGGACGGCGCCAACCGCGAGACCAAGATCGGCAAGGCCGGCT 2041	
	1922 TGAACACCCCCCCCCGGTGAAGCTGTGGTACCAGCTGGAGAAAGGAGCCCCATCATCGGCG 1981	
	1862 CCTGGGAGACCTGGTGGACCGACTACTGGCAGGCCACCTGGATCCCCGAGTGGGAGTTCG 1921	
	1802 TGGAGAGCATCGTGATCTGGGGCAAGACCCCCAAGTTCCGCCCTGCCCATCCAGAAGGAGA 1861	
	1742 TGCGCACCACCACCAACGACGTGAAGCAGCTGACCGAGGCCGTGCAGAAGATCGCCA 1801	
	1682 GGACCTACCAGATCTACCAGGAGCCCTTCAAGAACCTGAAGACCGGCAAGTACGCCAAGA 1741	
	1622 TGTACTACGACCCCAGCAAGGACCTGGTGGCCGAGATCCAGAAGCAGGGCCACGACCAGT 1681	
	1562 AGGAGGCCGAGCTTGGAGCTGGAGAAACCGCGAGATCCTTGCGCGAGCCCGTGCACGGCG 1621	
	1502 GCCAGCTGTGCAAGCTGCTGCGCGGCGCCAAGGCCCTGACCGACATCGTGCCCCTGACCG 1561	
	1442 TCCAGAAGCTGGTGGGCAAGCTGAACTGGGCCAGCAGATCTACCCCGGCATCAAGGTGC 1501	
	1382 ACAAGTGGACCGTGCAGCCCATCGAGCTGCCCGAGAAGGAGAGCTGGACCGTGAACGACA 1441	
	1322 CCGACAAGAAGCACCAGAAGGAGCCCCCCTTCCTGTGGATGGGCTACGAGCTGCACCCCG 1381	
	1262 AGCACCGCCCAAGATCGAGGAGCTGCGCAAGCACCTGCTGCGCTGGGGCTTCACCACCC 1321	
	1202 AGATCGTGATCTACCAGTACATGGACCACCTGTACGTGGGCAGCGACCTGGAGATCGGCC 1261	

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Patent: WO 0232943-A 163 25-APR-2002;
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              AGATGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCA
                                                    TAGGGGGCCAGCTGAAGGAGGCCCTTCTAGACACCGGCGCCGACGACACCGTGCTGGAGG
                                                                     TGGGCGGCCAGATCAAGGAGGCCCTGCTGGACACCGGCGCCGACGACACCGTGCTGGAGG
                                                                                                        CTGTATCCTTTAGCTTCCCTCAGATCACTCTTTGGCAGCGCCCTCGTCACAATAAAGA
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/mol_type="unassigned DNA"
/mol_type="unassigned DNA"
/db xref="taxon:125630"
/noTe="plasmid pVR1012x/s containing HIV genes"
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1439 ACATCCAGAAGCTGGTGGGCAAGCTGAACTTGGGCCAGATCTACCCCGGCATCAAGG 1498	1319 CCCCCGACAAGAAGCACCAGAAGGAAGCCCCCCTTCCTGTGGATGGGCTACGAGCTGCACC 1378	119 COMMAN COLONIC CACCAMOLANCE DENCONCO CONTROL CONTR	ACAACGAGACCCCCGGCATCCGCTACCAGTACAACGTGCTGCCCCAGGGCTGGAAGGGCA 4105 GCCCCAGCATCTTCCAGAGCAGGATGACCAAGATCCTGGAGCCCTTCCGCGCCCCGCAACC 1198	1019 TCAGCGTGCCCCTGGACGAGGACTTCCGCAAGTACACCGCCTTCACCATCCCCAGCATCA 1078	899 ACTTCCGCGAGGCTGAACAAGCGCACCCAGGACTTCCTGGGAGGTTGCAGCTTCCCCC 958	ACAACACCCCCGTGTTCGCCATCAAGAAGAAGAAGGACGCACCCAAGTGGCGCAAGCTGGTGG 3865	3685 778 3745	9 6 9	506 AGGTGGGCCAGTACGACCAGATCCTGATCGAGATCTGCGGCCACAAGGCCATCGGCACCG 3565
SOURCE Synthetic construct ORGANISM synthetic construct other sequences; artificial sequences. AUTHORS Huang, Y. and Nabel, G.J. TITLE Modifications of hiv env, gag, and pol enhance immunogenicity for genetic immunization JOURNAL Patent: WO 0232943-A 165 25-APR-2002; GOVERNMENT OF THE UNITED STATES (US) FEATURES SOURCE Location/Qualifiers source /organism="synthetic construct" /mol_type="unassigned DNA" /db_xref="taxon:32630"	11 27 27 AX427927 FION Sequence 1 ION AX427927 N AX427927.1	5246 2339 5306	2219 AGCTGGTGAACCAGATCATCGAGCAGCTGATCAAGAAAGGAGAAAGTGTACCTGAGCTGGG	y 2099 AGACCGAGCTGCAGGCCATCCAGGCCCCCAGGACAGCGGCAGGAGGTGAACATCG 2158	1979 GUSCUSAGA CUTTUTA CONTROLOGUCA CONTROLOGUCA AND CONTROLOGUCA CONTROLOGUCA AND CONTROLOGUCA	4826 AGACCTGGGAGGCCTGGTGGACCGAGTACTGGCAGGCCACCTGGATCCCCGAGTGGGAGT 1919 TCGTGAACACCCCCCCCCGGTGGAGCTGTGGTACCAGCTGGAGAAGGAGGCCCATCATCG	1799 CCATGARAGCATCGTGATCTGGGGCAAGACCCCCAAGTTCCGCCTGCCCATCCAGAAGG	y 1679 AGRIGACCITACCAGATCITACCAGGAGCCTTCAAGAACCTGAAGACCGGCAAGTAGGCCA 1738	4586 GCGTGTACTACGACCCCAGCAAGGACCTGATCGCCGAGATCCAGAAGGCAGGGCCAGGGCC

GCTACGTGACCGACCGCCGCCAGAAGGTGGTGCCCCTGACCGACACCACCAACCA	문 4	959 ACCCCGCCGGCCTGAAGAAGAAGAAGAGCGTGACCGTGCTGGACGTGGGCGACGCCTACT 1018	S
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	₹ B :	479 AGATGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCA 538	B 성
	& 유 :	419 TGGGCGGCAGATCAAGGAGGCCCTGCTGGACACCGGCGCCGACGACACCGTGCTGGAGG 478	문 &
	Q B 5	365CCCTGAACTTCCCCCAGATCACCCTGTGGCAGCGCCCCCTGGTGAGCATCAAGG 418	용 성
	S B :	311 TGCAGGTGCGCGGCGACAACCCCCGCAGCGAGGCGCGGGGGCGCGAGCGCCAGGGCA 364	8 8
	Q B	251 GCAAGGCCCGCGAGTTCCCCAGCGAGCAGAACCGCGCCAACAGCCCCCACCAGCCGCGAGC 310	B 8
	Q B	191 TGAAGGACTGCACCGAGGCCAGGCCAACTTCTTCCGCGAGGACCTGGCCTTCCCCCCAGG 250	B 8
4166 CCGACATCGTGATCTACCAGTACATGGACGACCTGTACGTGGGCGTGGGGCTTCACCA 1318	Q B 1	131 GCAACTGCCGCGCCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGGCCACCAGA 190 	용 성
	S B 7	71 TCAAGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGCCACATCGCCC 130	용 <i>청</i>
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3986 TCAGCGTGCCCCTGGCATCCGCTACCTACCAGTGCTGCCCCAGGGCTGGAAGGGCA 1138	S B 7	Query Match 82.1%; Score 2027; DB 6; Length 12411; Best Local Similarity 91.6%; Pred. No. 4e-166; Matches 2194; Conservative 0; Mismatches 185; Indels 16; Gaps 4;	Д Ве
3926 ACCCCGCCGGCCTGAAGCAGAAGAAGAAGAGCGTGACCGTGCTGGACGTGGGCGACGCCTACT 3985	S B	/note="plasmid pVR1012x/s containing HIV genes"	ORIGIN

OY 191 TGAAGGACTIGCCGCAAGGACTACTTCTTCCGCGAGGACTTCCGCCAGG 250 191 TGAAGGACTIGCACCGAGGCCAACTTCTTCCGCGAGGACCTTCCCCCAGG 250 191 TGAAGGACTIGCACCGAGGCCAACTTCTTTCCGCGAGGACCTTCCCCCAGG 250 191 TGAAGGACTIGCACCGAGGCCAACTTCTTTTTTTTTTTGGGAAGATCTGGCCTTCCCCACAGG 250 251 GCAAGGCCCGCGAGTTCCCCAGGGCAGAACACACGCCCAACAGCCCCACCAGAGG 310 195 GCAAGGCCCGCGAGTTTCCTTCAGAGCAGCCCAACAGCCCCACCAGAAGAGAGC 3265 OY 311 TGCAGGTTCGCGGCGACAACCCCCCGAGGGCCCCACCAGGAGAGC 364 1	71 TCAAGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGCCACATCGCCC	Query Match Best Local Similarity 91.6%; Pred. No. 6e-166; Best Local Similarity 91.6%; Pred. No. 6e-166; Matches 2193; Conservative 0; Mismatches 186; Indels 16; Gaps 4; Qy 14 TGGCCGAGGCCATGAGCCAGGCCACCAGCGCCAACATCCTGATGCAGCGAGCAACT 70	GOVERNMENT OF THE UNITED STATES Location/Qualifiers 19194 (organism="synthetic co/mol_type="unassigned D/db xref="taxon:32630" /note="plasmid pVR1012x	SOURCE synthetic construct ORGANISM synthetic construct other sequences; artificial sequences. REFERENCE 1 AUTHORS Huang, Y. and Nabel, G.J. TITLE Modifications of hiv env, gag, and pol enhance immunogenicity for genetic immunization JOURNAL Patent: WO 023294-A 164 25-APR-2002:	RESULT 12 AX427926 AX427926 AX427926 DEFINITION Sequence 164 from Patent WO0232943. ACCESSION AX427926 VERSION AX427926.1 GI:21538013 KEYWORDS .	Qy 2339 TCCGCAAGGTGCTGTTCCTGGACGGCATCGATGGCGGCATCGTGATCTACCAGTA 2393	Qy 2279 TGCCCGCCCACAAGGGCATCGGCGGCAACGAGCAGATCGACCAAGCTGGTGAGCAAGGGCA 2338	Oy 2219 AGCTGGTGAACCAGATCATCGAGCAGCTGATCAAGAAGGAGAAGGTGTACCTGAGCTGGG 2278	Oy 2159 TGACCGACAGCCAGTACGCCCTGGGCATCATCCAGGCCCGACAAGAGCGAGAGAGCG 2218	QY 2099 AGACCGAGCTGCAGGCCATCCAGCTGGCCCTGCAGGACAGCGAGCG
5	B & B &	B & B &	D & D &	B & B &	B & B &	B 8	A A	음 성	B 8	B &
1259 GCCAGCACCGCGCCAAGATCGAGGAGCTGCGCAAGCACCTGCTGCGGCTTGAGGGCTTCACCA 1318	1139 GCCCCAGCATCTTCCAGAGCAGCATGACCAAGATCCTTGGAGCCCTTCCGCGCCCCGCAACC 1198	1019 TCAGCGTGCCCCTGGACGAGGACTTCCGCAAGTACACCGCCTTCACCATCCCCAGCATCA 1078	899 ACTTCCGCGAGCTGAACAAGCGCACCCAGGACTTCTGGGAAGGTGCAGCTGGGCATCCCCC 958	779 CCATCTGCGAGAGATGGAGAAGGAGGGCAAGATCACCAAGATCGGCCCCGAGAACCCCT 838	659 GCACCCTGAACTTCCCCATCAGCCCCATCGAGACCGTGCCCCGTGAAGCTGAAGCCCGGCA 718	599 TGCTGATCGGCCCCACCCCCGTGAACATCATCGGCCGAACATGCTGACCCAGCTGGGCT 658	539 AGGTGGGCAGTACGAGATCCTGATCGAGATCTGGGGCAAGAAGGCCATCGGCACCG 598	479 AGATGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCA 538	419 TGGGCGGCCAGATCAAGGAGGCCCTGCTGGACACCCGGCGCCGACGACACCGTGCTGGAGG 478	365CCCTGAACTTCCCCCAGATCACCCTGTGGCAGCGCCCCCTGGTGAGCATCAAGG 418

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SUSAN BARNETT,JAN ZUR MEGEDE,INDRESH SRIVASTAVA,YING LIAN, PI

KARIN HARTOG,
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/db_xref="taxon:32630"
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COB70574 COBFORTUCE Synthetic construct CORGANISM Synthetic construct CORGANISM Synthetic construct Improved expression of HIV polypeptides and production of Virus-like particles CHIRON CORPORATION (US) FEATURES SOURCE CHIRON CORPORATION (US) FEATURES CHIRON CORPORATION (US) Location/Qualifiers 1. 2306 CHIRON CORPORATION COB70574 C	Db 1615 CCGAGGCCGTTGCAGAAGGTGAGCACCGAGGAGCATCTGGGGGCAAGATCCCCCAAGT 1674 1838 TCGGCCTGGCCATCCAGAAGGAGACCTTGGGGAACCTTGTGGGCAAGATCCCCAAGT 1674 1675 TCAAGCTGCCCATCCAGAAGGAGACCTTGGGGAACCTTGGTGAACCGACTACTGGGCCAAGTCCGCCAAGTCCGAGGAGCTTGTGTGAAACCCCCCCC

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Qy 1538 TGACCGACATCGTGCCCTGACCGAGGAGGCCGAGGAGCTGGACGAGGAGCCGGAGAACCGCGAGA Db 1375 TGACCGAGGAGCCCGTGACCGAGGAGGCCGAGGAGCTGGACGAGGAGCCGAGAACCGCGAGA Qy 1598 TCCTGGAGGCCGTGCACGGCGTGTACTACGACCTGGAGGAGCCTGGTGGCGAGA Db 1435 TCCTGAAAGCACGTGCACGAGGTGTACTACCAGGAACCTTGAGAACC Qy 1658 TCCAGAAGCACGACCAGGACCAGGACCTACCAGGAACCTTCAAGAACC 1494 Db 1495 TCCAGAAGCAGGCCAGGACCAGGACCTACCAGGAGCCCTTCAAGAACC 1717 Db 1495 TCCAGAAGCAGGGCCAGGACCAGGACCTACCAGGAGCCCTTCAAGAACC 1717 1718 TGAAGACCGGCCAAGTACGCCAAGCACCCAACGAGCCCTTCAAGAACC 1777	1195 1418 1255 1478 1315	1178 AGCCCTTCCGGGCCCGCAACCCCGAACTCGTGATCTACCAGTACATCGACCACCTTGTACG	### AGTICAGGACTGGACATCCCCCACCCCGCCTGAAGAAGAAGAAGAAGAAGACGTGACCGTGCCGTGCCTGAAGAAGAAGAAGAAGAAGAAGAAGAACGTGACCGTGCCGCTGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAA	Qy 818 AGATCGGCCCCGAGAACCCCTACAACACCCCCGTGTTCGGCCATCAAGAAGAAGAAGGACAGCA 877	Qy 638 ACATGCTGACCCAGCTGGACCTGAACTTCCCCATCAGCCCCATCGAGACCGTGC 697

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The present invention describes expression cassettes comprising a polymucleotide sequence encoding a polymucleotide simmunogenic HIV type C polymeptides. The expression cassettes comprise any of the HIV type C gequences encoding Gag, Pol, Vif, Vpr, Tat, Rev, Vpu, Env or Nef

New polynucleotides encoding antigenic HIV Type C polypeptides, useful in applications including DNA immunization or generation of packaging cell lines, particularly in gene therapy.

WPI; 2002-154920/20.

Claim 1; Fig 8; 233pp; English.

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84.5	84.5	84.5	84.5	84.5	84.5	84.6	84.8	84.8	84.8	84.8	84.8	84.8	85.9	85.9	87.1	87.1	92.5	92.5	93.2	93.2	95.2	95.2	95.2	95.6	95.6	
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ALIGNMENTS

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RESULT 1
ABL39959
ID ABL3
Human immunodeficiency virus type C; antigenic HIV type C protein; immunogenic; immunisation; gag; pol; vif; vpr; tat; rev; vpu; env; nef; immunostimulant; gene therapy; gene; ds.
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 New expression cassette comprising a polynucleotide sequence encoding an HIV Pol polypeptide, useful in eliciting an immune response, in DNA immunization, generating of packaging cell lines or in producing HIV Type C proteins.
                                                                                                 (MEGE/)
(BARN/)
(ENGE/)
(RENS/)
                                                                                                                                                      05-JUL-2000; 2000US-00610313
                                                                                                                                                                                                                      US2003223961-A1
                                                                                                                                                                                                                                                                                                HIV-1 polynucleotide #7.
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ENGELBRECHT S.
RENSBURG E J V.
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Claim 1; SEQ ID NO 30; 160pp; English.

The invention relates to an expression cassette comprising a polynucleotide sequence encoding an HIV Pol polypeptide. The invention also relates to a recombinant expression system for use in a host cell comprising an expression cassette, where the polynucleotide sequence further comprises control elements capable of driving expression in the selected host cell, a cell comprising an expression cassette where the polynucleotide sequence further comprising an expression cassette where the polynucleotide sequence further comprising an expression cassette. The expression in the cell and a composition for generating an immunological response, comprising an expression cassette. The expression cassette and the methods of the invention are useful in eliciting an immune response, in DNA immunisation, in generation of packaging cell lines and in producing HIV Type C proteins. This sequence represents an HIV-1 polynucleotide of the invention.

Sequence 2469 BP; 571 A; 833 C; 761 G; 304 T; 0 U; 0 Other;

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GACGGCCCCAAGGTGAAGCAGTGGCCCCTGACCGAGGAGAAGATCAAGGCCCTGACCGCC
                                                         ACCCTGAACTTCCCCATCAGCCCCATCGAGACCGTGCCCGTGAAGCCTGAAGCCCGGCATG
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                                                                                               CTGATCGGCCCCACCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGC
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05-JUL-2001;
31-AUG-2001;
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16-JAN-2002;
16-JAN-2002;
                                                                                                                                                  Immunogenic HIV polypeptide; human immunodeficiency virus; HIV; vaccine; gene therapy; packaging cell line; humoral immune response; cellular immune response; gene delivery vector; DNA immunisation; ds.
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                                                                                                                                                                                            DNA ecoding immunogenic HIV peptide
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; 2001US-0316860P.
; 2002US-0349728P.
; 2002US-0349793P.
; 2002US-0349871P.
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Matches 2457
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New synthetic polynucleotides encoding antigenic HIV type B and/or type C polypeptides, useful as immunogenic compositions or vaccines for generating humoral or cellular immune responses against HIV in a subject, especially humans.
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                05-JUL-2002; 2002WO-US021420
                                                                                                                                         expression cassette; HIV Gag; Env; Int; Rev; HIV type C; gene therapy; vaccine;
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31-AUG-2001;
16-JAN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention relates to a novel expression cassette comprising a polynucleotide sequence encoding a polypeptide including an HIV Gag, Env, Int, Nef, piSRnaseH, Pol, Tat, Prot, or Rev polypeptide. The novel expression cassette can be used to treat HIV type C by gene therapy or used in the development of a vaccine. The gene delivery vector is administered intramuscularly, intramucosally, intranasally, subcutaneously, intradermally, transdermally, intravaginally, intrarectally, orally or intravenously. The expression cassette is useful for immunisation, generating packaging cell lines and producing HIV polypeptides. This polynucleotide sequence represents the DNA of an HIV Type C related sequence of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New expression cassette comprising a polynucleotide sequence encoding polypeptide including an HIV Gag, Env, Int, Nef, p15RnaseH, Pol, Tat, Prot, or Rev polypeptide, useful for immunization, or generating
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CAGTACGACCAGATCCTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTGCTGATC
                                                                                            CAGATCAAGGAGGCCCTGCTGGACACCGGCGCGACGACACCGTGCTGGAGGAGATGAGC
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2002US-0349871P.
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ABL39960 standard; DNA; 2463 ВP

ABL39960

15-MAY-2002 (first entry)

Synthetic construct PR975YM SEQ ID NO:31.

Human immunodeficiency virus type C; antigenic HIV type C protein; immunogenic; immunisation; gag; pol; vif; vpr; tat; rev; vpu; env; immunostimulant; gene therapy; gene; ds. nef;

Human immunodeficiency virus; type C

Synthetic.

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Best Local Similarity 99.0
Matches 2460; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New polynucleotides encoding antigenic HIV Type C polypeptides, useful in applications including DNA immunization or generation of packaging cell lines, particularly in gene therapy.
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HIV-1; gene; ds; HIV pol; immune response; DNA HIV type C protein; immunostimulant.
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The invention relates to an expression cassette comprising a polynuclectide sequence encoding an HIV Pol polypeptide. The invention also relates to a recombinant expression system for use in a host cell comprising an expression cassette, where the polynucleotide sequence further comprises control elements capable of driving expression in the selected host cell, a cell comprising an expression cassette where the polynucleotide sequence further comprising an expression cassette where the polynucleotide sequence further comprises control elements compatible with the expression in the cell and a composition for generating an immunological response, comprising an expression cassette. The expression cassette and the methods of the invention are useful in eliciting an immune response, in DNA immunication, in generation of packaging cell lines and in producing HIV Type C proteins. This sequence represents an HIV-1 polynucleotide of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1; SEQ ID NO 31; 160pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New expression cassette comprising a polynucleotide sequence encoding an HIV Pol polypeptide, useful in eliciting an immune response, in DNA immunization, generating of packaging cell lines or in producing HIV Typo
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) BARNETT S W.
) ENGELBRECHT S.
) RENSBURG E J V.
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Sequence 2463 BP; 567 A; 835 C; 759 G; 302 T; 0 U; 0 Other;

Query Match Best Local S Matches 2460 2460; 301 241 181 121 121 61 61 μ 1 GTCGACGCCACCATGGCCGAGGCCATGAGCCCAGGCCCAGCGCCCAACATCCTGATGCAG Similarity GTCGACGCCACCATGGCCGAGGCCATGAGCCAGGCCACCAGCGCCAACATCCTGATGCAG AGCCGCGAGCTGCAGGTGCGCGGCGACCAACCCCCGCAGCGAGGCCGGCGGCGGCGAGCGCCAG TTCCCCCAGGGCAAGGCCCGCGAGTTCCCCAGCGAGCAGAACCGCGCCAACAGCCCCACC TTCCCCCAGGGCAAGGCCCGCGAGTTCCCCCAGCGAGCAGAACCGCGCGCAACAGCCCCACC GGCCACCAGATGAAGGACTGCACCGAGCGCCAGGCCAACTTCTTCCGCGAGGACCTGGCC GGCCACCAGATGAAGGACTGCACCGAGCGCCAGGCCAACTTCTTCCGCGAGGACCTGGCC CACATCGCCCCAACTGCCGCGCCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAG CACATCGCCCGCAACTGCCGCGCCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAG CGCAGCAACTTCAAGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGC CGCAGCAACTTCAAGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGC Conservative 98.9%; <u>.</u> Score 2442.2; DB 12; Pred. No. 1.7e-294; 0; Mismatches 3; I 3; Indels Length 2463; 6; Gaps 60 360 360 300 180 120 120 300 240 240 180

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RESULT 7 ACA03547 ID ACA03547 standard; DNA; 2457 BP.	Qy 2461 GGTGAATTC 2469 Db 2455 GGTGAATTC 2463	2401 GACCTGTACC 2395 GACCTGTACC	2341 CGCAAGGTGCTGTTCCTGGACGGCATCGATGGCGGCATCGTGATCTACCAGTACATGGAC [2281 CCGGCCACAAGGGCATCGGCGGCAGGAGCAGGTGGTGAGGTGGTGAGGAGGGGATCGACAAGGTGGTGAGCAAGGTGGTGAGCAAGGGGCATCGGCGGCAAGGGGGAAGGAGCAGATCGACAAGGTGGTGAGCAAGGGCAACGGCAACGAGGAAGGGAAGGAA	2221 CTGGTGAACCAGATCCAGCAGCTGATCAAGAAGGAAGGAGAAGGTGTACCTGAGCTGGGTG	2161 ACCGACAGCCAGTROGCCCTGGGCATCATCCAGGCCCAGCCCGACAAGAGCGAGAGCGAGAGCGAGAGCGAGAGCGAGAGCGAGAGAGCGAGAGAGCGAGAGAGCGAGAGAGCGAGAGAGAGCGAGAGAGAGCGAGAAGA	2101 ACCGAGCTGCAGGCCATCCAGCTGGCCCTGCAGGACAAGCGCAGGTGAACATCGTG	2041 TACGTGACCGAGGCGGGCAGAAGATCGTGAGCCTGACCAGACCACACACA	1981 GCGAGACCTTCTACGTGGACGGCGCCGACACCGGGAGACCAGATCGGCAGACCGGCGGCGCGCGC	1921 GTGAACACCCCCCCCTGGTGAAGCTGTGGTACCAGCTGGACAAGGAGCCCATCATCGGC	1861 ACCTGGGAGACCTGGTGGACCGACTACTGGCAGCCACCTGGATCCCCGAGTGGGAGGTTC	1801 ATGGAGAGCATCGTGGATCTTGGGGCAAGACCCCCAAGTTCCGCCTGCCCATCCAGAAGGAG	1741 ATGCGCACCGCCCAACGAACGAACGAGCTGACCGAGGCCGTGCAGAAGATCGCC	1681 TGARCCTACCAGATCTACCAGGAGCCTTCAAGACCTGAAGACCGGCAAGTACGCCAAG	1615 GTGTACTACGACCCCAGCANGGACCTGGTGGCCGAGATCCAGAAGCAGGGCCACGACCAG	1551 GROSSAGE COMMET COMMET COMMET CONTROL CON	1501 CGCCAGCTGTGCAAGCTGCTGCGCGGCGAAGGCCCTGACCGACATCGTGCCCCTGACCC

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Matches 2453;
                                                                                                                                                                                                                                                                                                              The invention describes a synthetic polynucleotide encoding 2 or more immunogenic HIV polypeptides, where at least 2 of the polypeptides are derived from different HIV subtypes. The polynucleotide is useful for immunisation, generation of packaging cell lines, or production of HIV polypeptides. The polynucleotide and its encoded proteins are useful as immunogenic compositions or vaccines for generating humoral or cellular immune responses against HIV in a subject, or for inducing neutralising antibodies against HIV. The gene delivery vector comprising the polynucleotide is also useful for DNA immunisation of, or for generating an immune response (e.g. a humoral or cellular immune response in, a subject such as a mammal, particularly a human. This sequence encodes a human immunodeficiency virus immunogenic peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-JUL-2001; 2001US-0303192P.
31-AUG-2001; 2001US-0316860P.
16-JAN-2002; 2002US-0349728P.
16-JAN-2002; 2002US-0349793P.
16-JAN-2002; 2002US-0349871P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New synthetic polynucleotides encoding antigenic HIV type B and/or type C polypeptides, useful as immunogenic compositions or vaccines for generating humoral or cellular immune responses against HIV in a subject, especially humans.
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31-AUG-2001;
16-JAN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New expression cassette comprising a polynucleotide sequence encoding polypeptide including an HIV Gag, Env, Int, Nef, p15RnaseH, Pol, Tat, Prot, or Rev polypeptide, useful for immunization, or generating packaging cell lines.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 expression cassette; HIV Gag; Env; Int; Nef; pl5RnaseH; Pol; Tat; Prot; Rev; HIV type C; gene therapy; vaccine; immunisation; HIV; ds.
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2001US-0316860P.
2002US-0349871P.
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Disclosure; Fig 41; 301pp; English

The invention relates to a novel expression cassette comprising a polynucleotide sequence encoding a polypeptide including an HIV Gag, Env, Int, Nef, p15RnaseH, Pol, Tat, Prot, or Rev polypeptide. The novel expression cassette can be used to treat HIV type C by gene therapy or used in the development of a vaccine. The gene delivery vector is administered intramuscularly, intramucosally, intranasally, subcutaneously, intradermally, transdermally, intraveginally, subcutaneously, intradermally, transdermally, intraveginally, intraveginally, orally or intravenously. The expression cassette is useful for immunisation, generating packaging cell lines and producing HIV polypeptides. This polynucleotide sequence represents the DNA of an HIV Type C related sequence of the invention.

Sequence 2457 BP; 564 A; 835 C; 758 G; 300 T; 0 U; 0 Other;

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Matches 2453;
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Local Similarity 99.6%;
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                                                                                         GTCGACGCCACCATGGCCGAGGCCATGAGCCAGGCCACCAGCGCCCAACATCCTGATGCAG
 CACATCGCCGCAACTGCCGCGCGCCCCCGCAAGAAGGGGCTGCTGGAAGTGCGGCAAGGAG
                                                  CGCAGCAACTTCAAGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGC
                                                                             GTCGACGCCACCATGGCCGAGGCCATGAGCCAGGCCACCAGCGCCAACATCCTGATGCAG
                                                                                                                               0,
                                                                                                                               Score 2434.6; DB 10
Pred. No. 1.5e-293;
0; Mismatches 4;
                                                                                                                                                         DB 10;
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	Db A	DY 1201 GAGATCGTGATCTACCAGTACATGGACGACCTGTACGTGGGCAGCGAGCG
	Db &	OY 1141 CCCAGCATCTTCCAGAGCGAGCATGACCAAGATCCTGGAGCCCTTCCGCGCGCCGCAACCCC 1200
	Q D 1	QY 1081 AACGAGACCCCCGGCATCCGCTACCAGTACAACGTGCTGCCCCAGGGCTGGAAGGGCAGC 1140
	O D 4	OY 1021 AGCGTGCCCCTGGACGAGGACTTCCGCAAGTACACCCGCCTTCACCATCCCCCAGCATCAAC 1080
	. B &	Oy 961 CCCGCCGGCCTGAAGAAGAAGAAGAAGACGTGACCGTGGTGGACGTGGGCGACGCCTACTTC 1020
GCCGAGACCTTCTACGTGGACCGCCCCCCCCCCCCACACACA	D S	Qy 901 TTCCGCGAGCTGAACAAGCGCACCCAGGACTTCTGGGAGGTGCAGCTGGGCATCCCCCAC 960
GTGAACACCCCCCCCGGGGAAGCTGTGGTACCAGCTGGAGAAGGAGCCCATCATCACGCGGGAGAACACCCCCCCC	λ da δ	Gy 841 AACACCCCCGTGTTCGCCATCAAGAAGAAGGACAGCACCAAGTGGCGCAAGCTGGTGGAC 900 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
ACCTGGAAGACCTGGTGAACCGACTACTGGCAGGCCACCTGGAATCCCCGAGTGGAAGTTC 1	y da	ATCTGCGAGGAGATGGAGAAGGAGGGCAAGATCACCAAGATCGGCCCCC
A LOMANNOCAL COLONIAL CONSTRUCTION OF THE CONTROL CO	Db A	Qy 721 GACGGCCCAAGGTGAAGCAGTGGCCCCTGACCGAGGAGAAGATCAAGGCCCTGACCGCC 780
· 55 F		Qy 661 ACCCTGAACTTCCCCCATCAGCCCCCATCGAGACCGTGCCCGTGAAGCTGAAGCCCGGCATG 720
TIGGACCTACCAGATCTACCAGAGCCCCTCAAGAACCTGAAGAACGCCGGCAAGTACGCCAAG TIGHT TI	D	QY 601 CTGATCGGCCCACCCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGC 660
GIGIACIRCGACCCCAGCARGGACCIGGIGGCCGAGAICCGAGAICCAGAGCAGAG	} ₽ &	Qy 541 GTGCGCCAGTACGACCAGATCCTGAGATCTGCGGCAAGAAGGCCATCGGCACCGTG 600 [
GAGGAGGCCGAGCTGGAGCTGGGCCGAGAACCGCGAGATCCTGGCGCAAGCCCGTGCACGGC	φ φ φ	Qy 481 ATGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAG 540 Db 481 ATGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGCTTCATCAAG 540
o1 cgccaecrgrecaaecrgcrececegegeccaaegeccrgaecaecarcargececrgaec	dd VO	421 GGCGGC 421 GGCGGC
41 ATCCAGAAGCTGGTGGGCAAGCTGAACTGGGCCAGCCAGATCTACCCCGGCATCAAGGTG 	Q y	361 GGCACCCTGAACTTCCCCCAGATCACCTGTGGCAGCGCCCCTGGTGAGCATCAAGGTG
	Qy Db	
CCCGACAGAAGCACCAGAAGGAGCCCCCCTTCCTGTGGATGGGCTACGAGCTGCACCCC	dd Sy	Qy 241 TTCCCCCAGGGCAAGGCCCGCGAGTTCCCCAGCGAGAAACCGCGCCAACAGCCCCACC 300
CHICAC LIGHT CHARACT LIGHT CHARACT CONTROL TO CHARACT CHARAC	B &	QY 181 GGCCACCAGATGAAGGACTGCACCGAGCGCCAGGCCAACTTCTTCCGCGAGGACCTGGCC 240 Db 181 GGCCACCAGATGAAGGACTGCACCGAGCGCCAAGCTACTTCTTCCGCGAGGACCTGGCC 240
201 GAGATCGTGATCTACCAGGCCCCCCCTGTACGTGGGCAGCGACCTGGAGATCGGC		

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                                                    Query Match
Best Local Similarity
Matches 2451; Conserv
                                                                                                                                The present invention describes expression cassettes comprising a polymucleotide sequence encoding a polypeptide comprising immunogenic HIV type C polypeptides. The expression cassettes comprise any of the HIV type C sequences encoding Gag, Pol, Vii, Vpr. Tat., Rev., Vpu, Env or Nef (I). (I) have immunostimulant activity and can be used in gene therapy. The HIV type C polymucleotides are useful in applications including DNA immunisation, generation of packaging cell lines, and production of HIV Type C proteins. The polymucleotides are particularly useful in gene therapy and DNA immunisation applications. ABL39942 to ABL40054 and ABB06204 to ABB06215 represent sequences used in the exemplification of the present invention
                                                                                                         Sequence 2457
                                                                                                                                                                                                                                                                                              Claim 1; Fig 10; 233pp; English.
                                                                                                                                                                                                                                                                                                                      New polynucleotides encoding antigenic H applications including DNA immunization lines, particularly in gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                       Zur Megede J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-JUL-2000; 2000US-00610313
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABL39961 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200204493-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human immunodeficiency virus; type C.
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 GTCGACGCCACCATGGCCGAGGCCATGAGCCAGGCCACCAGCGCCAACATCCTGATGCAG
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                                                                                                        BP; 566 A; 837
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                                                              97.8%;
99.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                       Engelbrecht
                                                  Score 2415.4; DB 6;
Pred. No. 3.7e-291;
0; Mismatches 6;
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                                                                                                        754 G;
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                                                                                                                                                                                                                                                                                                                                     HIV Type C polypeptides, useful in or generation of packaging cell
                                                                                                        300 T; 0 U; 0 Other;
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                                                                           AGGGTGCCCCTGGACGAGGACTTCCGCAAGTACACCGCCTTCACCATCCCCAGCATCAAC
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The invention relates to an expression cassette comprising a polynucleotide sequence encoding an HIV Pol polypeptide. The invention also relates to a recombinant expression system for use in a host cell comprising an expression cassette, where the polynucleotide sequence further comprises control elements capable of driving expression in the selected host cell, a cell comprising an expression cassette where the polynucleotide sequence further comprises control elements compatible with the expression in the cell and a composition for generating an immunological response, comprising an expression cassette. The expression cassette and the methods of the invention are useful in eliciting an immune response, in DNA immunisation, in generation of packaging cell lines and in producing HIV Type C proteins. This sequence represents an HIV-1 polynucleotide of the invention.

expression

proteins.

ID NO 32; 160pp; English

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(BARN/) BARNETT S W.
(ENGE/) ENGELBRECHT S.
(RENS/) RENSBURG E J V.
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31-AUG-2001; 2001US-0316860P.
16-JAN-2002; 2002US-0349728P.
16-JAN-2002; 2002US-0349793P.
16-JAN-2002; 2002US-0349871P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Immunogenic HIV polypeptide; human immunodeficiency virus; HIV; vaccine; gene therapy; packaging cell line; humoral immune response; cellular immune response; gene delivery vector; DNA immunisation; ds.
                                                                                                     New synthetic polynucleotides encoding antigenic HIV type B and/or type polypeptides, useful as immunogenic compositions or vaccines for generating humoral or cellular immune responses against HIV in a subject especially humans.
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The invention describes a synthetic polynucleotide encoding 2 or mainmunogenic HIV polypeptides, where at least 2 of the polypeptides derived from different HIV subtypes. The polynucleotide is useful if
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     CCCGTGTTCGCCATCAAGAAGAAGGACAGCACCAAGTGGCGCAAGCTGGTGGACTTCCGC
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immunisation, generation of packaging cell lines, or production of HIV polypeptides. The polypucleotide and its encoded proteins are useful as immunogenic compositions or vaccines for generating humoral or cellular immune responses against HIV in a subject, or for inducing neutralising antibodies against HIV. The gene delivery vector comprising the polynucleotide is also useful for DNA immunisation of, or for generating an immune response (e.g. a humoral or cellular immune response) in, a subject such as a mammal, particularly a human. This sequence encodes a human immunodeficiency virus immunogenic peptide

562 A; 835 C; 751 G; 297 T; 0 U; 0 Other;

Score 2401.0; Pred. No. 1.8e-0; Mismatches e 2401.8; UB * No. 1.8e-289; 7; Indels Length 12; Gaps

AACTTCAAGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGCCACATC GCCACCATGGCCGAGGCCATGAGCCAGGCCACCAGCGCCAACATCCTGATGCAGCGCAGC CAGATGAAGGACTGCACCGAGCGCCAAGCCTTCTTCCGCGAGGACCTGGCCTTCCCC CAGATGAAGGACTGCACCGAGGCCCAGGCCCAACTTCTTCCGCGAGGACCTTGCCCT GCCCGCAACTGCCGCCCCCCCCCCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGGCCAC GCCCGCAACTGCCGCGCCCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGGCCAC AACTTCAAGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGCCACATC GCCACCATGGCCGAGGCCATGAGCCAGGCCACCAGCGCCAACATCCTGATGCAGCGCAGC 306 240 246 180 186 120 126 60 66 300

CAGGGCAAGGCCCGCGAGTTCCCCAGCGAGCAGAACCGCGCCAACAGCCCCACCAGCCGC CTGAACTTCCCCCAGATCACCCTGTGGCAGCGCCCCCTGGTGAGCATCAAGGTGGGCGGC GAGCTGCAGGTGCGCGGCGACAACCCCCCGCAGCGAGGCCCGGCCGAGCGCCAGGGCACC GAGCTGCAGGTGCGCGGCGACAACCCCCGCAGCGAGGCCGGCGCCGCGCGCGCGCCAGGGCACC 426 360 366

CAGATCAAGGAGGCCCTGCTGGCCACCGGCGCCGACGACACCGTGCTGGAGGAGATGAGC CAGATCAAGGAGGCCCTGCTGGACACACCGGCGCGACACCCGTGCTGGAGGAGATGAGC CTGAACTTCCCCCAGATCACCCTGTGGCAGCGCCCCTGGTGAGCATCAAGGTGGGCGGC 486 420 480

CAGTACGACCAGATCCTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTGCTGATC CTGCCCGGCAAGTGGAAGCCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAGGTGCGC CTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAGGTGCGC

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GGCCCCACCCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGCACCCTG CAGTACGACCAGATCCTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTGCTGATC GGCCCCACCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGCACCCTG 600

GAGGAGATGGAGAAGGAGGGCAAGATCACCAAGATCGGCCCCGAGAACCCCCTACAACACC CCCAAGGTGAAGCAGTGGCCCCTGACCGAGGAGAAGATCAAGGCCCTGACCGCCATCTGC GAGGAGATGGAGAAGGAGGGCAAGATCACCAAGATCGGCCCCGAGAACCCCCTACAACACC CCCAAGGTGAAGCAGTGGCCCCTGACCGAGGAGAAGATCAAGGCCCTGACCGCCATCTGC 840 846 780 906 786

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31-AUG-2001; 2001US-0316860P
16-JAN-2002; 2002US-0349871P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            expression cassette; HIV Gag; Env; Int; Nef; p15RnaseH; Pol; Tat; Rev; HIV type C; gene therapy; vaccine; immunisation; HIV; ds.
                                                                          New expression cassette comprising a polynucleotide sequence encoding polypeptide including an HIV Gag, Env, Int, Nef, p15RnaseH, Pol, Tat, Prot, or Rev polypeptide, useful for immunization, or generating
                                                                                                                                                                                                                                                                                              (CHIR )
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Matches 2438
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New expression cassette comprising a polynucleotide sequence polypeptide including an HIV Gag, Env, Int, Nef, p15RnaseH, Frot, or Rev polypeptide, useful for immunization, or generate
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The invention relates to a novel expression cassette comprising a polynucleotide sequence encoding a polypeptide including an HIV Gag, Int, Nef, pishnaseH, Pol, Tat, Prot, or Rev polypeptide. The novel expression cassette can be used to treat HIV type C by gene therapy oused in the development of a vaccine. The gene delivery vector is administered intramuscularly, intramucosally, intramaselly, subcutaneously, intradermally, transdermally, intravaginally, subcutaneously, orally or intravenously, The expression cassette is us for immunisation, generating packaging cell lines and producing HIV polypeptides. This polymucleotide sequence represents the DNA of an H Type C related sequence of the invention. is useful VIH

Sequence 3930 BP; 890 A; 1365 C; 1214 G; 461 T; 0 U; 0 Other;

Mismatches .2e-288; es 7; Indels 12; DB 10; Length Gaps 73 N

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expression cassette; HIV Gag; Env; Int; Nef; p15RnaseH; Pol; Tat; Rev; HIV type C; gene therapy; vaccine; immunisation; HIV; ds.
05-JUL-2002; 2002WO-US021420
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Matches 2430;
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                                                                                                          CCCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGCACCCTGAACTTCC
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                                                      ACACCAACGACGTGAAGCAGCTGACCGAGGCCGTGCAGAAGATCGCCATGGAGAGCATCG
                                                                                                                       TCTACCAGGAGCCCTTCAAGAACCTGAAGACCGGCAAGTACGCCAAGATGCGCACCGCCC
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TGATCTGGGGCAAGACCCCCAAGTTCCGCCTGCCCATCCAGAAGGAGACCTGGGAGACCT
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16-JAN-2002; 2002US-0349871P
                                                                                                                                                                                                                                                                                                                                                                                         expression cassette; HIV Gag; Env; Int; Rev; HIV type C; gene therapy; vaccine;
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New expression cassette comprising a polynucleotide sequence encoding polypeptide including an HIV Gag, Env, Int, Nef, p15RnaseH, Pol, Tat, Prot, or Rev polypeptide, useful for immunization, or generating packaging cell lines. ø

Disclosure; Fig 8; 301pp; English

The invention relates to a novel expression cassette comprising a polymucleotide sequence encoding a polypeptide including an HIV Gag, Env, Int, Nef, piSRnaseH, Pol, Tat, Prot, or Rev polypeptide. The novel expression cassette can be used to treat HIV type C by gene therapy or used in the development of a vaccine. The gene delivery vector is administered intramuscularily, intramacolally, subcutaneously, intradermally, transdermally, intranasally, subcutaneously, intradermally, transdermally, intravaginally, intravestion, generating packaging cell lines and producing HIV polypeptides. This polymucleotide sequence represents the DNA of an HIV Type C related sequence of the invention.

Sequence 3930 BP; 889 A; 1366 C; 1214 G; 461 T; 0 U; 0 Other;

Query Match 96.9 Best Local Similarity 99.2 Matches 2430; Conservative

96.9**%**; 99.2**%**;

DB 10; 8,

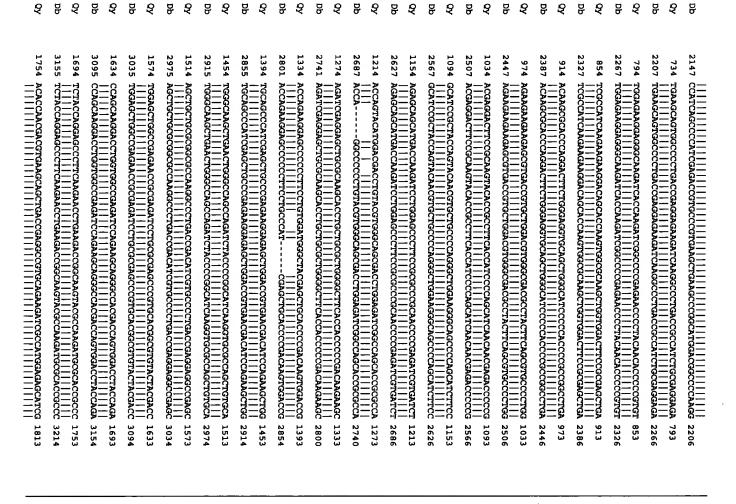
0; Mismatches Score 2393.2; DB 1 Pred. No. 1.9e-288;

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CCATCAGCCCCATCGAGACCGTGCCCGTGAAGCTGAAGCCCGGCATGGACGGCCCCAAGG
                                          CCCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGCACCCTGAACTTCC
                                                                                    ACCAGATCCTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTGCTGATCGGCCCCA
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CGGT 3924	5 GCAGCGGCGCCCTAGGATCGATTAAAAGCTTCCCGGGGCTAGCACCGGT	3875	DЬ
CGGT 2463	GCAGCGGCGCCTAGGATCGATTAAAAGCTTCCCGGGGCTAGCACCGGT	2414	Ş
CGACCTGTACGTGG 3874	5 TCCTGGACGGCATCGATGGCGGCATCGTGATCTACCAGTACATGGACGACCTGTACGTGG	3815	묽
CGACCTGTACGTGG 2413	* TCCTGGACGGCATCGCCGGCATCGTGATCTACCAGTACATGGACGACCTGTACGTGG	2354	Ş
CCGCAAGGTGCTGT 3814	5 GCATCGGCGCAACGAGCAGATCGACAAGCTGGTGAGCAAGGGCATCCGCAAGGTGCTGT	3755	망
CCGCAAGGTGCTGT 2353	GCATCGGCGGCAACGAGCAGATCGACAAGCTGGTGAGCAAGGGCATCCGCAAGGTGCTGT	2294	Ş
GCCCGCCCACAAGG 3754	5 TCATCGAGCAGCTGATCAAGAAGGAGAAGGTGTACCTGAGCTGGGTGCCCGCCC	3695	망
GCCCGCCCACAAGG 2293	TCATCGAGCAGCTGATCAAGAAGGAGAAGGTGTACCTGAGCTGGGTGCCCGCCC	2234	S
GCTGGTGAACCAGA 3694	5 ACGCCCTGGGCATCATCCAGGCCCAGCCCGACAAGAGCGAGAGCGAGC	3635	밁
GCTGGTGAACCAGA 2233	ACGCCCTGGGCATCATCCAGGCCCAGCCCGACAGAGCGAGAGCGAGC	2174	S
GACCGACAGCCAGT 3634	5 CCATCCAGCTGGCCCTGCAGGACAGCGGCAGCGAGGTGAACATCGTGACCGACAGCCAGT	3575	밁
GACCGACAGCCAGT 2173	CCATCCAGCTGGCCCTGCAGGACAGCGGCGGCGAGGTGAACATCGTGACGACGACGGCAGT	2114	ঠ
GACCGAGCTGCAGG 3574	5 GGGGCCGGCAGAAGATCGTGAGCCTGACCGAGACCAACCA	3515	당
GACCGAGCTGCAGG 2113	GGGCCGGCAGAAGATCGTGAGCCTGAGCCGAGACCACCAACCA	2054	Ş
CTACGTGACCGACC 3514	5 ACGTGGACGGCGCCAACCGCGAGACCAAGATCGGCAAGGCCGGCTACGTGACCGACC	3455	당
CTACGTGACCGACC 2053	* ACGTGGACGGCGCCAACCGCGAGACCCAAGATCGGCAAGGCCGGCTACGTGACCGACC	1994	Ş
CGCCGAGACCTTCT 3454	5 CCCTGGTGAAGCTGTGGTACCAGCTGGAGAAGGAGCCCATCATCGGCGCCGAGACCTTCT	3395	당
CGCCGAGACCTTCT 1993	CCCTGGTGAAGCTGTGGTACCAGCTGGAGAAGGAAGCCCATCATCGGCGCGAGACCTTCT	1934	Ş
CGTGAACACCCCCC 3394	5 GGTGGACCGACTACTGGCAGGCCACCTGGATCCCCGAGTGGGAGTTCGTGAACACCCCCC	3335	ઠ
CGTGAACACCCCCC 1933	GGTGGACCGACTACTGGCAGGCCACCTGGATCCCCGAGTGGGAGTTCGTGAACACCCCCC	1874	S
GACCTGGGAGACCT 3334	5 TGATCTGGGGCAAGACCCCCAAGTTCCGCCTGCCCATCCAGAAGGAGACCTGGGAGACCT	3275	망
GACCTGGGAGACCT 1873	4 TGATCTGGGGCAAGACCCCCAAGTTCCGCCTGCCCATCCAGAAGGAGGACCTGGGAGACCT	1814	Ş
CATGGAGAGCATCG 3274	5 ACACCAACGACGTGAAGCAGCTGACCGAGGCCGTGCAGAAGATCGCCATGGAGAGCATCG	3215	융

Search completed: December 30, 2005, 08:56:53 Job time: 1308.83 secs

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1: 9b
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CL967755 0BIFCC015
CL95255 0BIFCC016
AY101647 Zee mays
CZ247380 AIAA-aaf3
CL961989 0BIFCC006
EM321451 rockefell
CK159167 FCAS04056
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CZ216254 AIAA-aaf2
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EM321430 rockefell
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 BM321022 rockefell
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ALIGNMENTS

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ORIGIN	source	FEATURES					COMMENT	JOURNAL	11100	TITLE	REFERENCE			ORGANISM	KEYWORDS	VERSION	ACCESSION		DEFINITION	CL293849/c	RESULT 1
/organism="Zea mays" /mol_type="genomic DNA" /strain="W22 (ACR, bzl-m9)" /cultivar="UniformMu" /cultivar="UniformMu" /cultivar="UniformMu" /db xref="taxon:4577" /clone="0280349-08A1-C03" /clone=lib="UniformMu MuTAIL Library" /clone=lib="UniformMu MuTAIL Library" /clone=lib="UniformMu muTaIL Library" /clone=lib="UniformMu maize population by the thermo assymmetric interlaced PCR (TAIL) protocol using primers specific for the Mu terminal inverted repeat and a set of 16 arbitrary primers. Amplicons were size enriched using Sepharose 400 spin columns and cloned into the TOPO PCR4 vector."	1330	Location/Qualifiers	Sequence flanking probable Mu insertion site in UniformMu line: 0250349-08, Primer set: A Class: transposon insertion site.	Email: drm@ufl.edu	Tel: 352-392-1928 x322	Plant Molecular and Cellular Biology Program	Contact: Donald R. McCarty	Unpublished (2003)	nonilation	Semience tagged transposon insertions from the UniformMu maize	1 (Dases 1 CO 330)	Spermatophyta; Magnoliophyta; Tiliopsida; Poales; Poaceae; PACCAD clade; Panicoideae; Andropogoneae; Zea.	Rukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;	Zea mays	GSS.	CL293849.1 GI:42541978	CL293849	sequence.	02S0349-08A1-C03 UniformMu MuTAIL Library Zea mays genomic clone	ago to nun linear	

576 CGGCAAGAAGGCCATCGGCACCGTGCTGATCGGCCCCACCCCCGTGAACATCATCGGCCG 635	Query Match 4.0%; Score 97.8; DB 10; Length 2031; Best Local Similarity 42.6%; Pred. No. 2.7e-07; Matches 787; Conservative 0; Mismatches 1032; Indels 30; Gaps	<pre>/db_xref="taxon:39946" /clone lib="Oryza sativa Express Library" /note="Oryza sativa exon trapped genomic sequences " ORIGIN</pre>	FEATURES Location/Qualifiers 1. 2031 /organism="Oryza sativa (indica cultivar-group)" /mol type="genomic DNA"		on ⊬-H	TITIES An analysis of transcriptional regulation of the rice genome and its comparison to Arabidopsis JOURNAL Unpublished (2004) COMMENT Contact: Chen Chen	CE 1 (bases 1 to 2031) RS Ma,L., Wangc,J., Chen,C., Liu,X., Su,N., Li,L., Wang,X., Cao, Jiao,Y., Sun,N., Zhang,X., Bao,J., Sun,D., Zhao,H., Yuan,L., Wong,G.K.S., Deng,X.W. and Wang,J.	MSIN	t was serviced	CL974989 CL974989 LOCUS CL974989 CL974989		721 GACGGCCCAAGGTGAAG 738 30 GATGGCCAAAAGTAAGG 13	ACCTTAAATTITCCCATTAGTCCTATTGAAACTGTACCAGTAAAATTAAAGCCAGGAATG	149 TIAGTAGGACCTACACCTGTCAACATAATTGGAAGAAATCTGTTGACTCAGAATTGG-TGC 91 661 ACCCTGAACTTCCCCATCAGCCCCCATCGAGACCGTGGACGCTGAAGCTGAAGCCCGGGCATG	601 CTGATCGGCCCCACCCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGC 660	591 GIGGECAGIACGACHAGAICCIUAICGACAGAICIGGCAAGAAGGECAICGGCACCGIG 600 	ATGACTTTGACAGGAAGATGGAAAACCAAAAATGATAGGGGGAATTGGAGGTTTTATCAAA	481 ATGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAG 540	329 GGGGGCAGCTGGAAGAAGCTCTATTAGATACAGGAGCAGATGATACAGTATTAGAAGAA 270	Similarity 66.4%; Pred. No. 2.8e-14; 1; Conservative 0; Mismatches 106; Indels 1; Gaps	5.5%;
Db 1221 CGAGGCCGTGGCGTACGGCGCCGCCGTGCAGGCATCATCAGCGGCCACGTCGACGA 1280	1593 CGAGATCCTGCGCGAGCCCGTGCACGGCGTTACGACCCCCAGCAAGGACCTGGTGGC	Qy 1533 GGCCCTGACCGACATCGTGCCCCTGACCGAGGAGCCTGGAGCTGGAGAACCG 1592	Db 1041 CAGCGACCTCTTCAAGAAGACGATGGTGCCGCGAAGCTGCTGCGGCGCCCAA 1532	Oy 1413 CGAGAAGGAGAGCTGGACCGTGAACGACATCCAGAAGCTGGTGGGCAAGCTGAACTGGGC 1472 Db 981 CCTGTTCGACGGCGTCGACTTGTCGGAGGCGCGCTCTCCCGGGGCGGGTTCGAGGAGCTCAA 1040	Oy 1356 GTGGATGGGCTACGAGCTGCACCCCGACAAGTGGACCGTGCAGCCCATCGAGCTGCC 1412	Db 861 CCGGAAAGCACGGCCGCGACATCACCGGGGGGGGGGGGG	CGTGGGCAGCCTGGAGATCGGCCAGCACCGCCCAAGATCGAGGAGCTGCGCAAGCA	Oy 1176 GGAGCCCTTCCGCGCGCCGCAACCCCGAGATCTACCAGTACATGGACGACCTGTA 1235	Qy 1116 GCTGCCCCAGGGCTGGAAGGGCAGCATCTTCCAGAGCAGCATGACCAAGATCCT 1175	Qy 1056 CGCCTTCACCATCCCCAGCATCAACAACGAGACCCCCCGGCATCCGCTACCAGTACAACGT 1115	561 CGTCCCGGCCTACTTCAACGACGCCAGCGAGCCACCAAGGACGCCGGCGTCATCGC	Db 501 GCGGATGAAGGAGACGACGACGACGTACCTCGGCAAGAAAAGGTCACCCGCGCCGTCGTCAC 560	Qy 936 GGAGGTGCAGCTGGGCAACCCGGCCGGCCTGAAGAAGAAGAAGAAGACCGT	Qy 876 CACCAAGTGGCGCAAGCTGGTGGACTTCCGCGAAGCAACAAGCGCACCCAAGAACTTCTG 935	Db 393 GCGTTCGCCGTCGACCGGAACGGCAAGCCGCACGTGCGCGTCGAGGTGAAGGACGG 452	333 CAAGCGGCTCATCGGCCGGCAGTTCTCCGACGCCCAGGTGCAGCGCGACATGAAGCTGCT 392 816 CAAGATCGGCCCGAGAACCCCTACAACACCCCCGTGTTCGCCATCAAGAAGAAGAACAG 875	Oy 756 GGAGAAGATCAAGGCCCTGACCGCCATCTGCGAGGAGATGGAGAAGGAGGGGCAAGATCAC	Db	70 Qy 696 GCCCGTGAAGCTGAAGCCCGGCATGGACGGCCCCAAGGTGAAGCAGTGGCCCCTGACCGA 755	Qy 636 CAACATGCTGACCCAGCTGGGCTGCACCTGAACTTCCCCATCAGCCCCATCGAGACCGT	Db 153 CGGCACGACGTACTCGTGCGTCGGAGTCTACCGGAACGGCCATGTCGAGATCATCGCCAA 212

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RESULT 3
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Ma,L., Wangc,J., Chen,C., Liu,X., Su, Jiao,Y., Sun,N., Zhang,X., Bao,J., Su Wong,G.K.S., Deng,X.W. and Wang,J. An analysis of transcriptional regula its comparison to Arabidopsis Unpublished (2004)
Contact: Chen Chen Department of Bioinformatic Beijing Institute of Genomics
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Oryza sativa (indica cultivar-group)
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Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
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Fax: 86-10-80488676
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DNA linear GSS 21-SEP-2004
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cultivar-group) genomic, genomic survey sequence.
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GSS.
Oryza sativa (indica cultivar-group)
Oryza sativa (indica cultivar-group)
Oryza sativa (indica cultivar-group)
Sukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
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Department of Bioinformatic
Bejjing Institute of Genomics
Chinese Academy of Sciences, Be
Tel: 86-10-80481559
Fax: 86-10-80488676
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Class: exon-trapped.
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   CCCGGCATCCGCTACCAGTACAACGTGCTGCCCCAGGGCTGGAAGGGCAGCCCCCAGCATC
                                    GGCGCCGACGTCTTCCCCCAACCTCGTCGAGCTCGGCATCTGCCGCACCGACATCAAGGCC
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/mol type="genomic DNA"
/db_xref="taxon:39946"
/clone llb="Oryza sativa E
/note="Oryza sativa exon t
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Zea mays PCC
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HTC:
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If you are interested in getting corresponding physical clones, these are publicly available from ZmDB and may be found by BLAST searching at MSL, maizemap.org; ZmDB, www.zmdb.iastate.edu; TIGR, www.tigr.org; or NCBI, www.ncbi.nlm.nih.gov. When the source of the maize CDNA sequences is either Virginia Walbot, Stanford or Pat Schnable, Iowa State, then clones may be requested from ZmDB: www.zmdb.iastate.edu.
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Maize Mapping Project/DuPont
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overgo addressing of BACs in conjunction with the Maize
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Washington University in St. Louis
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. I
Tel: 314 286 1810
Fax: 314 286 1810
Email: nematode@watson.wustl.edu
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/lab_host="GS10"
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CL961989
CL961989.1 GI:52378720
GSS.
Oryza sativa (indica cultivar-group)
Oryza sativa (indica cultivar-group)
Oryza sativa (indica cultivar-group)
Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.
1 (bases 1 to 1398)
1 (bases 1 to 1398)
1 Tin X. Su.N. Li.L. Wang,X., Cao,M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ma,L., Wangc,J., Chen,C., Liu,X., Su,N., Li,L., Wang,X., Cao, Jiao,Y., Sun,N., Zhao,H., Yuan,L., Wong,G.K.S., Deng,X.W. and Wang,J.

An analysis of transcriptional regulation of the rice genome tes comparison to Arabidopsis
Unpublished (2004)
Contact: Chen Chen
Department of Bioinformatic
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Chinese Academy of Sciences, Beijing 101300, China
Tel: 86-10-80481559
Fax: 86-10-80488676
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OBIFCC006991 Oryza sativa Express Library Oryza sativa (indica
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/mol rype="genomic DNA"
/db_xrefe="taxon:39946"
/clone lib="Oryza sativa E:
/note="Oryza sativa exon t:
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BM321451
                                                                                                                                                                                                                                                                                               Eukaryota; Pelobiontida; Mastigamoebidae; Mastigamoeba
1 (Dases 1 to 951)
Bapteste, Brinkmann, H., Lee, J.A., Moore, D.V., Sense:
Gordon, P., Durufle, L., Gaasterland, T., Lopez, P., Mulle
                                                                                                                                                                                                               The analysis of 100 genes supports the grouping of three highly divergent amoebae: Dictyostelium, Entamoeba, and Mastigamoeba Proc. Natl. Acad. Sci. U.S.A. 99 (3), 1414-1419 (2002)
                                                                                                                                                                                                                                                                                                                                                                                      Mastigamoeba balamuthi
Mastigamoeba balamuthi
                                                                                      Email: mmuller@rockvax.rockefeller.edu
                                                                                                                            Laboratory of Biochemical Parasitology
The Rockefeller University
                                                                                                                                                                       Contact: Muller Miklos
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  Location/Qualifiers
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                               Triticum aestivum (bread Triticum aestivum
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/strain="ATCC 30984"
/db xref="taxon:108607"
/clone_lb="Mastigamoeba k
/note="syn: Phreatamoeba k
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University of Saskatchewan, Department of Computer Science 1C101 Engineering Building, 57 Campus Drive, Saskatcoon, Saskatchewan, S7N SA9, Canada
Tel: 306 966 1769
Fax: 306 966 2033
Email: fgas_ests@cs.usask.ca
Email: fgas_ests@cs.usask.ca
This sequence is the direct result of the Base calling software phred (default parameters). It is the raw base calls. To aid in the identification of the high quality insert the software Lucy (default parameters) has been run on this sequence. Lucy identified the rector of the high quality insert the software Lucy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pooideae, Triticeae; Triticum.

1 (bases 1 to 869)

Allard, F., Crosby, W.L., Danyluk, J., Budes, F., Frick, M., Gaudet, I allard, F., Crosby, W.L., Danyluk, J., Hrycan, L.D., Laroche, A., Links, M.G., McCarthy, E.L., Monroy, A., Muzak, I., Nilson, D., Penniket, C., Roach, J.L. and Sarhan, F.

Functional Genomics of Abiotic Stress In Wheat and Canola Crops Unpublished (2003)

Contact: Wm L Crosby

Bioinformatics
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Plate: TaLt537 row: N column:
GACGTGGGCGACGCCTACTTCAGCGTGCCCCTGGACGAGGACTTCCGCAAGTACACCGCC 1059
                                                                                                                                                   ATGCTGACCCAGCTGGGCTGCACCCTGAACTTCCCCATCAGCCCCCATCGAGACCGTGCCC
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/db xref="taxon:4555"
/db host="PH5 alpha"
/clone lib="Triticum asstivum PGAS: TaLt5"
/clone Triticum PGAS: Talt5"
/clone T
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Pred. No. 5e-05;
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	FEATURES SOUICE	REFERENCE AUTHORS TITLE JOURNAL COMMENT	CL973991 LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM	, h	Db 287 Oy 1180 Db 227	Db 407 Qy 1060 Db 347 Qy 1120
9.0	Beijing Institute of Genomics Chinese Academy of Sciences, Be Tel: 86-10-80481559 Fax: 86-10-80488676 Email: chenchen@genomics.org.cn Rice genomic sequence. Class: exon-trapped. Location/Qualifiers 1. 3069 /organism="Oryza sativ /mol_type="genomic DNA /db_xref="taxon:39946" /clone_lib="Oryza sativa ey /note="Oryza sativa ey	1 (bases 1 to 3069) Ma,L., Wangc,J., Chen,C., Liu,Jiao,Y., Sun,N., Zhang,X., Bao Wong,G.K.S., Deng,X.W. and Wang An analysis of transcriptional its comparison to Arabidopsis Unpublished (2004) Contact: Chen Chen Department of Bioinformatic	CL973991 OBIFCC025416 Oryza Baticultivar-group) genomic CL973991 CL973991.1 GI:52402507 GSS. Oryza Bativa (indica cu Oryza Bativa (indica cu Bukaryota, Viridiplanta Spermatophyta; Magnolio Ehrhartoideae: Oryzaae:	240 GGCAGCGAC 1248 		
Score 84; DB: Pred: No. 8.2e- 0; Mismatches 0; Mismatches	ijing (inc ra (inc	wangc,J., Chen,C., Liu,X., Su,N., Sun,V., Sun,	C1973991 3069 bp DNA linear GS: 081FCC025416 Oryza sativa Express Library Oryza sativa cultivar-group) genomic, genomic survey sequence. C1973991 C1973991.1 GI:52402507 GSS. Oryza sativa (indica cultivar-group) Oryza sativa (indica cultivar-group) Enkaryota; Viridiplantae; Streptophyta; Embryophyta; T. Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poace		AACAACAACAACAACAACAACAACAACAACAACAACAAC	GACAACAACGACAACAACGACAACAACAACAACAACAACA
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An analysis of transcriptional regulation of the rice genome its comparison to Arabidopsis comparison to Arabidopsis unpublished (2004)

Contact: Chen Chen Department of Boinformatic Beijing Institute of Genomics Chinese Academy of Sciences, Beijing 101300, China

Tel: 86-10-80481559
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Oryza sativa (indica cultivar-group)
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
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CX099623.1 GI:66912775
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Tel: 8
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Han, B., Zhang, Q. and Wang, S.
Features of the expressed sequences revealed by analysis of ESTs from a normalized cDNA library rice cultivar Minghui 63
Plant J. 42 (5), 772-780 (2005)
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Oryza sativa (indica cultivar-group)
Oryza sativa (indica cultivar-group)
Eukaryota, Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoidae; Oryzeae; Oryza.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Wang
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: shipingwang@hotmail.com
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Wuhan 430070, China
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ang, J., Feng, Q., Jin, C.,
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                                                                                   /note="Vector: pSPORT1; Site 1: Sal1; Site 2: Not1; The library is constructed based on the strategy of satuation hybridization with genomic DNA using rice cultivar Minghui 63. This library consists of cDNA from 15 directionally cloned cDNA libraries constructed with different tissues from 9 developmental stages."
                                                                                                                                                                                            rice
                                                                                                                                                                                                                           /tissue_type="whole plant"
/dev_stage="whole-life-cycle"
/lab_host="E_coli DH10B"
                                                                                                                                                                                                                                                                                EI070G16, EI08"
                                                                                                                                                                                                                                                                                            /cultivar="Minghui 63"
/db_xref="taxon:39946"
/clone="BI057014, THREEB09,
                                                                                                                                                                                                                                                                                                                                                                 /organism="Oryza sativa (indica
/mol_type="mRNA"
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                                                                                                                                                                                                                                                                                                                                                   /strain="indica"
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                43.2%;
Score 82.6; DB 8;
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CW922203
CW922203.1
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Contact: Isin Anderson
The Institute for Genomic Research (Title Institute for Genomic Rockville,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9712 Medical Center Drive,
Tel: 301-795-7949
Fax: 301-838-0208
Class: shotgun.
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Unpublished (2004)
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Bukaryota; Acanthamoebidae; Acanthamoeba
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                          GTGGCCCCTGACCGAGGAGAAGATCAAGGCCCTGACCGCCATCTGCGAGGAGA---TGGA
                                                        GCGCATCATGGACTCGGCCTTGATCATGGCGTCCCAGCTCGCCGCCGCTACATCACCAA
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                                                                                                                                                                                                                                                                                                                                  ccTecTecAcAcceCecceAcceCeTecTecAccAcACATeAACATEACCTCCCCCCAAAGTG
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CCGCTTCCTGCCCGACAAGGCCATCGATCTGATTGACGAAGCCTGCGCCAACACCCCGCGT
                                                                                       CCCCATCGAGACCGTGCCCGTGAAGCTGAAGCCCGGCATGGACGGCCCCAAGGTGAAGCA
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/mol type="genomic DNA"
/strain="Neff"
/db xref="taxon:5755"
/clone="BDCAR29"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone_lib="A. castellanii,
genomic_DNA"
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                                                                                                                                                                                                                                                                                                                                                                                                                                         Tel: 314 286 1800
Fax: 314 286 1810
Email: nematode@watson.wustl.edu
Genomic DNA provided by John Hawdon
sequenced by Washington University G
Class: shotgun
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Mitreva,M., McCarter,J.P., Pape,D., Ritter,B., Tsagareishvili,R.,
Ronko,I., Martin,J., Wylie,T., Dante,M., Meyer,R., Messina,D.,
Waterston,R.H., Clifton,S.W. and Wilson,R.
Genome Survey sequences from the parasitic nematode Ancylostoma
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Ancylostoma caninum
Ancylostoma caninum
Rukaryota, Metazoa, Nematoda, Chromadorea, Rhabditida,
Ancylostomatoidea, Ancylostomatidae, Ancylostomatinae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Washington University in St. Louis
Washington University School of Medicine
4444 Porest Park Parkway, Box 8501, St.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Mitreva M
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                                                                                                                                                                                                                                         /organism="Ancylostoma c./mol type="genomic DNA"
/strain="Baltimore"
/db xref="taxon:29170"
/dev stage="Adult"
/lab_host="GS10"
                 /note="Vector: pOTW13; Site_1: BstX1; Site_2: BstX1; Ancylostoma caninum genomic DNA was randomly sheared, end-repaired and size fractioned to enrich for 2-4 kb fragments. Genomic DNA was provided by John Hawdon (mtm[hh@gwunc.edu) at George Washington University. Sequencing by Washington University Genome Sequencing Center, St. Louis, MO."
                                                                                                                                                                                      /clone lib="Ancylostoma caninum whole library (AIAAGSS 001)"
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Best Local Similarity
Matches 334; Conserv
                                     TITLE
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                                                  Mastigamoeba balamuthi
Eukaryota; Pelobiontida; Mastigamoebidae; Mastigamoeba.
1 (bases 1 to 1132)
Bapteste, E., Brinkmann, H., Lee, J.A., Moore, D.V., Senser
Gordon, P., Durufle, L., Gaasterland, T., Lopez, P., Muller
Philippe, H.
                                                                                                                                                                                                                                                   BM320864 1132 bp mRNA linear EST 03-JAN-2002 rockefeller.0.46 Mastigamoeba balamuthi lambda ZAP II Library Mastigamoeba balamuthi cDNA similar to ribosomal protein L5, mRNA
                                                                                                                                                                                                                                  sequence.
The analysis of 100 genes supports the grouping of three highly divergent amoebae: Dictyostelium, Entamoeba, and Mastigamoeba Proc. Natl. Acad. Sci. U.S.A. 99 (3), 1414-1419 (2002)
                                                                                                                                                                Mastigamoeba balamuthi
                                                                                                                                                                                                BM320864.1
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Pred. No. 0.00031;
0; Mismatches 379;
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Muller, M. an
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The Rockefeller University
1230 York Avenue, New York, NY 10021, U
Email: mmuller@rockvax.rockefeller.edu
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Contact: Muller Miklos
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     CCCGAGGGCGCCAAGCCCAAGCACTGGGGCAAGCGCAGGCTGACGTACCACGAGCGCAAG
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                                       ATCAAGAAGAAGGACAGCACCAAGTGGCGCAAGCTGGTGGACTTCCGCGAGCTGAACAAG
                                                                          ACCGAGGCCCACAAGCAGATCCGCGCCGACCCGACCTTCGTCCCCAAGCGCGCCTCGAAG
                                                                                                          AAGGAGGCAAGATCACCAAGATCGGCCCCGAGAACCCCCTACAACACCCCCGTGTTCGCC
                                                                                                                                               CGCCAGTTCTCGCGCTACGCCAAGGAGGGTGTCACCGCCGACATGCTCGAGAAGATCTAC
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ilarity 45.3%;
Conservative
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/mol_type="mRNA"
/strain="ATCC 30984"
/db xref="taxon:108607"
/clone_lib="Mastigamoeba b
/note="syn: Phreatamoeba b
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1. .1132
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Search Job tim	유 왕
Search completed: December 31, 2005, 02:31:20 Job time : 8727.85 secs	919 CGCACCAGGACTTCTGGGAGGTGCAGCTGGGCATCCCCCACCCCGGC 966

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Maximum Match 100%
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Maximum DB seq length: 200000000
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11710.708 Million cell updates/sec
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181 GGCCACCAGATGAAGGACTGCACCGAGCGCCAAGCTTCTTCCGCGAGGACCTGGCC 240	121 CACATCGCCGCAACTGCCGCGCCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAG 180	61 CGCAGCAACTTCAAGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGC 120 	1 GTCGACGCCACCATGGCCGAGGCCATGAGCCAGGCCACCAGCGCCAACATCCTGATGCAG 60	Query Match 100.0%; Score 2463; DB 6; Length 2463; Best Local Similarity 100.0%; Pred. No. 2e-202; Matches 2463; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	AX455915 Sequence 31 from Patent WOO204493. AX455915 AX455915 Synthetic construct synthetic construct other sequences; artificial sequences. 1 zur Megede, J., Barnett, S.W., Engelbrecht, S. and van Rensburg, E. Polymcleotides encoding antigenic hiv type c polypeptides, polypeptides and uses thereof Patent: WO 0204493-A 31 17-JAN-2002; CHIRON CORPORATION (US); University of Stellenbosch (ZA) Location/Qualifiers 1. 2463 /organism="synthetic construct" /mbl type="unassigned DNA" /db xref="taxon:32630" /noTe="PR975YM"

CGCGCCAAGATCGAGGAGCTGCGCAAGCACCTGCTGCGCTGGGGGCTTCACCACCCCCGAC	GAGATCGTGATCTACCAGGCCCCCTGTACGTGGGCAGCGACCTGGAGATCGGCCAGCAC	CCCAGCATCTTCCAGAGCAGCATGACCAAGATCCTGGAGCCCTTCCGCGCCCCGCAACCCC	AACGAGACCCCCGGCATCCGCTACCAGTACAACGTGCTGCCCCAGGGCTGGAAGGGCAGC	AGCGTGCCCTGGACGAGGACTTCCGCAAGTACACCGCCTTCACCATCCCCAGCATCAAC			841 AACACCCCCGTGTTCGCCATCAAGAAGAAGACACCACCCAAGTGGCGCAAGCTGGTGGAC 900	ATCTGCGAGGAGATGGAGAAGGAGGGCAAGATCACCAAGATCGGCCCCGAGAAACCCCTAC	721 GACGGCCCAAGGTGAAGCAGTGGCCCCTGACCGACGAGAAGATCAAGGCCCTGACCGCC 780	661 ACCCTGAACTTCCCCATCAGCCCCATCGAGACCGTGCCCGTGAAGCTGAAGCCCGGCATG 720		541 GTGCGCCAGTACGACCAGATCCTGAGATCTGCGGCAAGAAGGCCATCGGCACCGTG 600	ATGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAG	421 GGCGGCCAGATCAAGGAGGCCCTGCTGGACACCGGCGCCGACGACACCGTGCTGGAGGAG 480	361 GGCACCCTGAACTTCCCCCAGATCACCCTGTGGCAGCGCCCCCTGGTGAGGCATCAAGGTG 420	301 AGCCGCGAGCTGCAGGTGCGCGGCGACAACCCCCGCAGGCGAGGCCGGGGCGAGGCGCCAAGCGCCAG 360	241 TTCCCCCAGGGCAAGGCCCGCGAGTTCCCCAGCGAGCAGAACCGCCCAACAGCCCCACC 300	
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Patent: WO 0204493-A 32 17-JAN-2002;
CHIRON CORPORATION (US); University of Stellenbosch (ZA)
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 AACACCCCGTGTTCGCCATCAAGAAGAAGGACAGCACCAAGTGGCGCAAGCTGGTGGAC
                         ATCTGCGAGGAGATGGAGGAGGGCAAGATCACCAAGATCGGCCCCGAGAACCCCCTAC
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BATURES				JOURNAL COMMENT	AUTHORS TITLE	ORGANISM	ACCESSION VERSION KEYWORDS	RESULT 4 BD263704 LOCUS DEFINITION										
/or Location/Qualif	PC C12N7/00,C12P21/02,C12N15/00,C12N5/00,A61K37/02 CC Description of Artificial Sequence: FS(-).protmod.RTopt.YM FH Key Location/Qualifiers FT source 12306	KARIN HARTOG, PI HONG LIU,CATHERINE GREER,MARK SELBY,CHRISTOPHER WALKER PC C12N15/09,A61K31/711,A61K38/00,A61K48/00,A61P31/18,A61P37/02, PC C12N5/10.	PD 08-OCT-2002 PD 08-OCT-2002 PF 30-DEC-1999 UP 2000591193 PR 31-DEC-1998 US 60/114495,01-DEC-1999 US 60/168471 PI PR 31-DEC-1998 US 60/114495, INDRESH SRIYASTAVA, YING LIAN, PI SUSAN BARNETT, JAN ZUR MEGEDB, INDRESH SRIYASTAVA, YING LIAN, PI	Patent: 170 2002533124-A 71 08-OCT-2002; CHIRON CORP OS Artificial Sequence PN .TP 2002533124-A/71	Barnett,S., Megede,J.Z., Srivastava,I., Lian,Y., Hartog,K., Liu,H., Greer,C., Selby,M. and Walker,C. Improved expression of HIV polypeptides and production of	synthetic construct synthetic construct synthetic construct other sequences; artificial sequences.	virus-like particles. BD263704 BD263704.1 GI:33073472 ID 2002533124-B/71	BD263704 2306 bp DNA linear PAT 17-JUL-2003 Improved expression of HIV polypeptides and production of	455 TTC 2457			CACAAGGGCATCGGCGCAACGAGCAGATCGACAAGCTGGTGAGCAAGGGCATCCGCAAG	ACCAGATICATICAGICAGICAGICAGATICAAGATICAGAGATICATICAGICAGAGICAGAGATICATICAGICAGAGICAGAGATICAGICAGATICAAGATICAAGATICAAGATICAAGATICAAGATICAAGAAGGAGAAAGGAGAAGGAGAAGGAGAAGGAGAAGGAGA	ANCICANGIA CONTROL INGOLOGIA CAN ICANO CONTROL		ACCIGAC COGGIGA CAGAAGA TOGTIGAGC CTGACCCAGCCAACCAGAAGACCGAG ACCIGACCGGGGCCGGCAGAAGATCGTGAGCCTGACCGAGACCAACCA		1915 ACCCCCCCCCTGGTGAAGCTGTGGTACCAGCTGGAGAAGGAGCCCATCATCGGCGCCGAG 1974 1981 ACCTTCTACGTGGACGGCGCCGCCAACCGCGAGACCAAGATCGGCAAGGCCGGCTACGTG 2040

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Qy 290 ACAGCCCCACCAGCGGGAGCTGCAGGTGCGGGGGGACAACCCCCGGAGCGAGCGAGCGAGCG	Query Match B3.1%; Score 2046; DB 6; Length 2306; Best Local Similarity 93.6%; Pred. No. 1e-166; Matches 2159; Conservative 0; Mismatches 135; Indels 12; Gaps Qy 170 GCGGCAAGGAGGGCCACCAGATGAAGGACTGCACCGAGGCCAACTTCTTCCGCG	Liu,H., Greer,C., Selby,M. and Walker,C. Improved expression of HIV polypeptides and produc virus-like particles Patent: BP 1433851-A 82 30-JUN-2004; CHIRON CORPORATION (US) Location/Qualifiers 12306 /organism="synthetic construct" /mol_type="unassigned DNA" /db_xref="taxon:32630" /note="Description of Artificial Sequence FS(-).protmod.RTopt.YM"	linear PAT	Qy 2198 ACAAGAGCGAGAGCGAGGTGGTGAACCAGATCATCGAGCAGCTGATCAAGAAGGAGAAGG Db 2041 ACAAGAGCGAGAGCTGGTGAGCCAGATCATCGAGCAGCTGATCAAGAAGGAGAAGG Qy 2258 TGTACCTGAGCTGGGTGCCCGCCCACAAGGGATCGAGCAAGAAGGAGAATCAAGAAGGAGAAGGAGAAGGAGAAGGAGAAGGAGAAGGAGA
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358 GCTACGAGGTTGCACCCGACAAGTGGACCCTGCAGCCCATCGAGCTGACCCGAGAAGGAGA 1417	178 AGCCCTTCCGCGCCCCAACCCCGAAATCGTGATCTACCAGGCCCCCCTGTACGTGGCAACCCCGAAATCGTGATCTACGAGGCCCCCCTGTACGTGGGCAACCCCGACATCGTGATCTACCAGGCCCCCCTGTACGTGGGCAACCCCGACATCGTGATCTACCAGGCCCCCCTGTACGTGGGCAACCCCGACAACCACCAGGCCCCCCTGTACGTGGCAACCAGGCCCCGACAACAACCATCGAGGAACCTGCAAAGAACCTGCGAAACAACAACAACAACAACAACAACAACAACAACAAC	998 TGGACGTGGGCGACGCCTACTTCAGCGTGCCCCTGGACGACGAGGACTTCCGCAAAGTACACCG 1057		CCGACGACACCCGTGCTGGAGGAGATGAACCTGCCCGGCAAGTTGGAGACCCAAGATCATCG GCGGCATCGGCCGCTTCATCAAGGTGCCCCAGTACGACCAGATCCTGATCGAGATCTTGCG [

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Best Local Similarity 93.6%;
Matches 2159; Conservative
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Expression of HIV polypeptides and production of virus-like
particles
Patent: US 6602705-A 82 05-AUG-2003;
Chiron Corporation; Emeryville, CA
1. 2306
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TGGACGTGGGCGACGCCTACTTCAGCGTGCCCCTGGACGACGAGGACTTCCGGCAAGTACACCG
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Sequence 168
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Huang, Y. and Nabel, G.J.

Modifications of hiv env, gag, and po
genetic immunization
Patent: WO 0232943-A 168 25-APR-2002;
GOVERNMENT OF THE UNITED STATES (US)
LOCATION/Qualifiers
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Query Match 82.3%; Best Local Similarity 91.7%; Matches 2194; 3021 3081 74 AGGCCCGCGAGTTCCCCCAGCGAGCAGAACCGCGCCAACAGCCCCCACCAGCCGCGAGCTGC 313 AGGACTGCACCGAGGCCAGGCCAACTTCTTCCGCGAGGACCTGGCCTTCCCCCCAGGGCA ACTGCCGCGCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGGCCACCAGGTGA ACTGCCGCGCCCCCCCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGGCCACCAGATGA AGGGCCCAAGCGCACCATCAAGTGCTTCAACTGCGGCAAGGAGGGCCACCTGGCCCGCA AGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGCCCACATCGCCCGCA AGGACTGCACCGAGCGACAGGCTAA-TTTTTTAGGGAAGATCTGGCCTTCCCACAAGGGA Conservative 0, Score 2027.6; DB 6; Pred. No. 2.4e-165; Mismatches 179; Indels Length 19; Gaps 3199 193 133 3020 253 3140 3080 73 4.

/organism="synthetic construct" /mol type="unassigned DNA" /mb xref="taxon:35630" /mb xref="plasmid pVR1012x/s containing

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16 CCGACAAGAAGCACCAGAAGGAGCCCCCCTTCCTGTGGATTGGGCTACGAGCTGGACCCCG 1375 	AGCACCGCGCCAAGATCGAGGAGCTGCGCAAGCACCTGCTGCGCTGGGGCTTCACCACCC	AGATCGTGATCTACCAGGCCCCCTGTACGTGGGCAGCGACCTGGAGATCGGCC	CAGCATCTTCCAGAGCAGGAGTGACCAAGATCCTGGAGCCCTTCCGCGCCACCCGCAACCCCG	ACGAGACCCCCGGCATCCGCTACCAGTACAACGTGCTGCCCCAGGGCTGGAAGGGCAGCC	GOTGCCCTGGACGAGGACTTCCGCAAGTACACCGCCTTCACCATCCCCAGCATCAACA 	CCGCCGGCCTGAAGAAGAAGAAGAAGAGCGTGACCGTGCTGGACGTGGCCGACGCCTACTTCA	TCCGCGAGCTGAACAAGGGCACCCAGGACTTCTGGGAGGTGCAGCTGGGATTCCCCCCACC 961	ACACCCCGTGTTCGCCATCAAGAAGAAGAACACCACCAAGTGGCGCAAGCTGGTGGACT	TCTGCGAGGAGATGGAGAAGGAGGGCAAGATCACCAAGATCGGCCCCGAGAACCCCTACA	ACGGCCCCAAGGTGAAGCAGTGGCCCCTGACCGAGGAGAAGATCAAGGCCCTGACCGCA	CCTGAACTTCCCCATCAGCCCCATCGAGACCGTGCCCGTGAAGCTGAAGCCCGGCATGG	TGATCGGCCCACCCCCTGAACATCATCGCCGCAACATGCTGACCCAGCTGGGCTGCA 661	TGGGCAGTACGACCAGATCCTGATCGAGATCTGGGGCAAGAAGGCCATCGGCACCGTGC	TGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAGG 541	GCGGCCAGATCAAGGAGGCCCTTGCTGGACACCCGGCCCGACGACCCGTGCTGGAGGAGAGA	ccctgaactrocccagatcaccctgragacacccctgragacatcaagatgg	14 AGGTGCGCGCGACAACCCCCGCAGCGAGGCCGGCGCCGAGCGCAGGGCA 364
RESULT 8 BD263706 BD263706 BD263706 BD263706 BD263706 BD263706 BD263706 DEFINITION Improved expression of HIV polypeptides and production of	Qy 2336 GCAAGGTGCTGTTCCTGGACGGCATCGATGGCGGCATCGTGATCTACCAGTA 2387	Qy 2276 CCGCCCACAAGGGCATCGGCGGCAAGCAGGTCGACAAGCTGGTGAGCAAGGGCATCC 2335	QY 2216 TGGTGAACCAGATCATCGAGCAGCTGATCAAGAAGGAGAAGGTGTACCTGAGCTGGGTGC 2275	Qy 2156 CCGACAGCCAGTACGCCCTGGGCATCATCCAGGCCCAGCCCGACAAGAGCGAGAGAGCGAGC	Qy 2096 CCGAGCTGCAGGCCATCCAGCTGGCCCTGCAGGACAGCGACGTGAACATCGTGA 2155	Oy 2036 ACGTGACCGACCGGGGCCGGCAGAAGATCGTGAGCCTGACCGAGACCACCAGAAGA 2095	Oy 1976 CCGAGACCTTCTACGTGGACGGCGCCCCACCGCGAGACCAAGACCAAGATCGGCAAGACCGGCT 2035	QY 1916 TGAACACCCCCCCCCCTGGTGAAGCTGTGGTACCAGCTGGAGAAGGAGCCCATCATCGGCG 1975	Qy 1856 CCTGGGAGACCTGGTGGACCGACTACTGGCAGGCCACCTGGATCCCCGAGTGGGAGTTCG 1915	Qy 1796 TGGAGAGCATCGTGATCTGGGGCAAGACCCCCAAGTTCCGCCTGCCCATCCAGAAGGAGA 1855	Qy 1736 TGCGCACCGCCCACACGACGACGTGAAGCAGCTGACCGAGGCGTGCAGAAGATCGCCA 1795	QY 1676 GGACCTACCAGATCTACCAGGAGCCCTTCAAGAACCTGAAGACCGGCAAGTACGCCAAGA 1735	Oy 1616 TGTACTACGACCCCAGCAAGGACCTGGTGGCCGAGATCCAGAAGCAGGGCCACGACCAGT 1675	Oy 1556 AGGAGGCCGAGCTGGAGCTGGCCGAGAACCCGCGAGATCCTGCGCGAGCCCGTGCACGGCG 1615	OY 1496 GCCAGCTGTGCAAGCTGCTGCGCGGGGCCAAGGCCCTGACCGACATCGTGCCCCTGACCG 1555	Oy 1436 TCCAGAAGCTGGTGGGCAAGCTGAACTGGGCCAGATCTACCCCGGCATCAAGGTGC 1495	Oy 1376 ACAAGTGGACCGTGCAGCCCATCGAGCTGCCCGAGAAGGAGAGCTGGACCGTGAACGACA 1435

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Best Local Similarity 93.3%;
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ICE 1 (bases 1 to 2312)

RES Barnett, S., Megede, J. Z., Srivastava, I., Lian, Y., Hartog, K., Liu, H.

RES Greer, C., Selby, M. and Walker, C.

Improved expression of HIV polypeptides and production of virus-like particles

virus-like particles

Virus-like particles

Patent: JP 2002533124-A 73 08-OCT-2002;

IAL Patent: JP 2002533124-A 73 08-OCT-2002;

OS Artificial Sequence
PN JP 2002533124-A/73

PD 08-OCT-2002

PR 31-DEC-1999 JP 2000591193

PR 31-DEC-1999 US 60/114495,01-DEC-1999 US 60/168471 PI SUSAN BARNETT, JAN ZUR MEGEDE, INDRESH SRIVASTAVA, YING LIAN, PI KARIN HARTOG, PC C12NT5/09, A61K31/711, A61K38/00, A61K48/00, A61P37/02, PC C12NT5/09, A61K31/711, A61K38/00, C12N5/00, A61K37/02 CC C12NT5/00, C12P21/02, C12NT5/00, C12N5/00, A61K37/02 CC
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BD263706
BD263706.1 GI:33073474
JP 2002533124-A/73.
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Description of Artificial Sequence: FS(-).protmod.RTopt(+)
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Patent: EP 1433851-A 84 30-JUN-2004;
CHIRON CORPORATION (US)
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Sequence 84 from Patent EP1433851.
CQ870576
CQ870576.1 GI:52000092
                                                                                                                                                                                      synthetic construct synthetic construct
                                                                                                             Improved expression of HIV polypeptides
                                                                                                                              Barnett,S., Zurmegede,J., Srivastava,I., Liu,H., Greer,C., Selby,M. and Walker,C.
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/organism="synthetic construct"
/mol_type="unassigned DNA"
/db_xref="taxon:32630"
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                                                                                                   TGGACGTGGGCGACGCCTACTTCAGCGTGCCCCTGGACGACGACGACTTCCCGCAAGTACACCG
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dd	2192 AGCCCGACAAGAGCGAGAGCGGAGCTGGTGAACCAGATCATCGAGCAGCTGATCAAGAAGG 2251	8
Qy	1981 GCGGCCTGGAGGTGAACATCGTGACCGACAGCCAGTACGCCCTGGGCATCATCCAGGCCC 2040	рb
Db	2132 GCGGCAGCGAGGTGAACATCGTGACCGACAGCCAGTACGCCCTGGGCATCATCCAGGCCC 2191	Ş
Q	TCGCCGACCACCAGCAGCAGCCGAGCTGCAGGCCATCCACCTGGCCCTGCAGGACA	당
Db		Ş
Q B	2012 AGACCAAGATCGGCAAGGCCGGCTACGTGACCCGACGGGCCCGGCAGAAGATCGTGAGCC 2071	음 성
. Q	TGGAGAAGGAGCCCATCGTGGGCGCCGAGACCTTCTACGTGGACGGCGCCGACCGA	문
фd	1952 TGGAGAAGGAGCCCATCATCGGCGCCGAGACCTTCTACGTGGACGGCGCCGCCAACCGCG 2011	Ş
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S S	.681 TCAAGCTGCCCATCCAGAAGGAGAGACCTGGGAGGCCTGGTGGATGGA	당 5
무 (1821 - TOTALOTANGUINTON TONG TONG TONG TONG TONG TONG TONG	5 8
) Ma	772 CCGAGGCCGTGCAGAAGATCGCCATGGAGAGCCATCGTGATCTGGGGCAAGACCCCCCAAGT	\$ 5
Qu Be	1561 TGAAGACCGGCAAGTACGCCCGCATGCGCGGCGCCCACACGACGACGTGAAGCAGCTGA 1620	밁
ORIG	1712 TGAAGACCGGCAAGTACGCCAAGATGCGCACCACCACCACCAACGACGTGAAGCAGCTGA 1771	ð
FEAT	1652 TCCAGAAGCAGGCCACGACCAGTGGACCTACCAGATCTACCAGGAGCCCTTCAAGAACC 1711	B 8
Jo	TCCTGAAGGACCCGTGCACGAGGTGTACTACGACCCCAGCAAGGACCTGGTCGCCGAGA	밁
TI	1592 TCCTGCGCGAGCCCGTGCACGGCGTGTACGACCCCAGCAAGGACCTGGTGGCCGAGA 1651	8
REFE		В
SOUR	1532 TGACCGACATCGTGCCCCTGACCGAGGAGGCCGAGCTGGAGCCTGGCCGAGAACCGCGAGA 1591	Ş
ACCE VERS KEYW	1472 AGATCTACCCCGGCATCAAGGTGCGCCAGCTGTGCAAGCTGCTGCGGGGGGCGCCAAGGCCC 1531	용 성
LOCU	1261 AGGACAGCTGGAACGACATCCAGAAGCTGGTGGGCAAGCTGAACTGGGCCAGCC 1320	망
RESU	1412 AGGAGAGCTGGACCGTGAACGACATCCAGAAGCTGGTGGGCAAGCTGAACTGGGCCAGCC 1471	ઇ
Db	1352 GGATGGGCTACGAGCTGCACCCCGACAAGTGGACCCGTGCAGCCCATCGAGCTGCCCGAGA 1411	용 성
92	TGCTGCGCTGGGGCTTCACCACCCCCGACAAGAAGCACCAGAAGGAGCCCCCCCTTCCTGT	문
da V	1292 TGCTTGCGCTTGGGGCTTCACCACCCCGACAAGAAGCACCAGAAGGAAG	ठ
} B	1232 TGGGCAGCGACCTGGAGATCGGCCAGCACCGCGCCAAGATCGAGGAGCTGCGCAAGCACC 1291	음 성
Q 5	1021 AGCCCTTCCGCAAGCAGAACCCCGACATCGTGATCTACCAGTACATGGACGACCTGTACG 1080	문
. Q	1178 AGCCCTTCCGCGCCCGCGAACCCCCGAGATCGTGATCTACCAGGCCCCCCTGTACG 1231	8
da	961 TGCCCCAGGGCTGGAAGGGCAGCCCCGCCATCTTCCAGAGCAGCATGACCAAGATCCTGG 1020	밁

B & B & B &	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	SOURCE SOURCE SOURCE ORGANISM REFERENCE AUTHORS TITLE JOURNAL FEATURES SOURCE ORIGIN ORIGIN OPEN MACCHES MATCHES	Qy 24 Db 22 RESULT 10 RESULT 10 AR373389 LOCUS DEFINITION ACCESSION VERSION VERSION	D Q D Q	40 40 40
398 GCCCCTGGTGAGCATCAAGGTGGGCGCCAGATCAAGGAGGCCCTGCTGCACCCGGCG 457	70 GCGGCAAGGAGGGCCACCAGATGAAGGACTGCACCGAGGCCCAGCCCAACTTCTTCCGCG	Unknown. B Unknown. ANISM Unknown. BNCE 1 (bases 1 to 2312) HORS Barnett,S.W., Megede,J., Greer,C. and Selby,M. Expression of HIV polypeptides and production of virus-like particles PARTICLES EXPRESSION OF HIV polypeptides and production of virus-like particles Chiron Corporation; Emeryville, CA Chiron Corporation; Emeryville, CA RES Location/Qualifiers (organism="unknown" /mol_type="genomic DNA" N B2.2%; Score 2025.2; DB 6; Length 2312; t Local Similarity 93.3%; Pred. No. 6.1e-165; Ches 2156; Conservative 0; Mismatches 138; Indels 18; Gaps 3;	2432 AAAAGCTTTCCCGGGGCTAGCACCGGTGAATTC 2463	312 ACAAGCTGGTGAGCAAGGGCATCGCAAGGTGCTG	041 AGCCCGACAAGAGCGAGAGCGAGCTGGTGAGCCAGATCATCGAGCAGCTGATCAAGAAGG 252 AGAAGGTGTACCTGAGCTGGGTGCCCGCCCACAAGGGCATCGGCGGCAACGAGCAGATCG

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1412 AGAGAGACCTGGACCGACAACCACCAGAAGCTGGAGCAGCCCAGAAGCCTGAAGCTGGACCTGAACCTGGACCAGCC 1471	1232 TGGGCAGCACCTGGAGATCGGCCAGCACCCAGCACTGCAGGAGCTGCGCAAGCACC 1291		781 AGGTGCAGCTGGCCATCCCCACCCCGCCCGCCTGAAGAAGAAGAAGAAGAGCGTGACCGTGC 840 998 TGGACGTGGGCGACCCTACTTCAGCGTGCCCCTGGACGAGGACTTCCGCAAGTACACCG 1057	CCAAGTIGGCGCAAGCTIGGTGGACTTCCGCGAGCTGAACAAGCGCACCCAGGACTTCTGGG	AGAAGATCAAGGCCCTGACCGCCATCTGCGAGGAGAAGAAGAAGAAGAAGAAGAACACCACAAGAACAAC	578 GCAAGAAGCCGATCGGCACCGTGATCGGCCCCACCCCCGTGAACATCATCGGCCGCA 637
RESULT 11 BD263705 LOCUS DEFINITION Improved expression of HIV polypeptides and production of virus-like particles. ACCESSION BD263705.1 GI:33073473 VERSION JD263705.1 GI:33073473 SOURCE ORGANISM synthetic construct other sequences; artificial sequences. REFERENCE AUTHORS Barnett, S. Megede, J.Z., Srivastava, I., Lian, Y., Hartog, K., Liu, H., Jurius Jke particles JOURNAL Patent: JP 2002533124-A 72 08-OCT-2002;	Db 2161 ACAAGCTTGATGAGGCGCGGCATCGCAAGGTGCTGTTCCTGAACGGCATCGATTGCGGCA 2220 Qy 2372 TCGTGATCTACCAGTACATGGACGACCTGTACGTGAGCGGCGCCCTAGGATCGATT 2431 Db 2221 TCGTGATCTACCAGTACATGGACCACCTGTACGTGGGCAGCGGCCCTAGGATCGATT 2280 Qy 2432 AAAAGCTTCCCGGGGGCTAGCACCGGTGAGTTC 2463	Oy 2192 AGCICCACAAGAGCAAGAGCAGACTGGTGATCAAGAAGG 2251 Db 2041 AGCICCACAAGAGCAGAGCAGAGCTGGTGATCAAGAAGG 2251 Oy 2252 AGAAGGTGATCAAGAAGCAGAGCTGGTGATCAAGAAAGG 2100 Oy 2252 AGAAGGTGATACCTGAGCTGGGTGCCCGCCCACAAGGGCATCGGCGCAACGAGCAGATCG 2311	TGACCGAGACCAACCAAGCAAGACGAGCCTGCAGGCCATCCAGCTGGCCCTGCAGGACA	Qy 1952 TGGAGAAGGAGCCCATCATCGGCGGCCGAGACCTTCTACGTGGACGGCGCCAACCCGCG 2011	Qy 1832 TCCGCCTGCCCATCCAGAAGGAGACCTGGGAGACCTGGTGGACCACTACTGGCAGGCCA 1891	Db 1501 TCCAGAAGCAGGCCAGGGCCAGGACCTACCAGATCTACCAGAGCCCTTCAAGAACC 1560 Oy 1712 TGAAGACCGGCAAGTACGCCAAGATCTACCAGAGCCCTTCAAGAACC 1560 Oy 1561 TGAAGACCGGCAAGTACGCCAGATCGACCACCACGACGTGAAGCAGCTGA 1771 Db 1561 TGAAGACCGGCAAGTACGCCGCATGCGCGGCCCACACCAACGACGTGAAGCAGCTGA 1620 Oy 1772 CCGAGGCCGTGCAGAAGATCGCCGCATGGAGCACCAACGACGTGAAGCCCCCAAGT 1831 Ob 1621 CCGAGGCCGTGCAGAAAGGTGAGCACCGAAGAAGATCCCCAAGT 1680

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OS Artificial Sequence
PN JP 2002533124-A/72
PD 08-OCT-2002
PP 30-DEC-1999 JP 2000591193
PF 30-DEC-1999 US 60/14495,01-DEC-1999 US 60/168471 PI
SUSAN BARNETT,JAN ZUR MEGEDE,INDRESH SRIVASTAVA,YING LIAN, PI
KARIN HARTOG,
PI HONG LIU,CATHERINE GREER,MARK SELBY,CHRISTOPHER WALKER PC
C12N15/09,A61K31/711,A61K38/00,A61K48/00,A61P31/18,A61P37/02, PC
C12N5/10,
PC C12N7/00,C12P21/02,C12N15/00,C12N5/00,A61K37/02 CC
Description of Artificial Sequence: FS(-).protmod.RTopt.YMMM FH
Key LOCATION/OUGHIFT
FT SOURCE //organism='Artificial Sequence'.
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AGATCGGCCCCGAGAACCCCCTACAACACCCCCGTGTTCGCCATCAAGAAGAAGGACAGCA
                                                                                                                                                        ACATGCTGACCCAGCTGGGCTGCACCCTGAACTTCCCCATCAGCCCCATCGAGACCGTGC
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Location/Qualifiers
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/mol_type="genomic DNA"
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93.2%;
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Pred. No. 2e-164;
0; Mismatches 138;
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               TCCCCGAGTGGGAGTTCGTGAACACCCCCCCCCTGGTGAAGCTGTGGTACCAGCTGGAGA 1957
                                                                   TGCCCATCCAGAAGGAGACCTGGGAGACCTGGTGGACCGACTACTGGCAGGCCACCTGGA
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  TCCCCGAGTGGGAGTTCGTGAACACCCCCCCCCCTGGTGAAGCTGTGGTACCAGCTGGAGA
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Query Match 82.0%; Score 2019.2; DB 6; Length 2300; Best Local Similarity 93.2%; Pred. No. 2e-164; Matches 2150; Conservative 0; Mismatches 138; Indels 18; Gaps 3; Qy 170 GCGCAAGGAGGCCACCAGATGAAGGACTGCACCGAGGCCAACTTCTTCCGCG 229	rce	, Zurmegede, J., Sreer, C., Selby, M. a spression of HIV particles particles 1433851-A 83 30-J PORATION (US)	LOCUS CQ870575 DEFINITION Sequence 83 from Patent EP1433851. ACCESSION CQ870575 VERSION CQ870575 CQ870575 CQ870575 SOURCE Synthetic construct ORGANISM synthetic construct ORGANISM synthetic construct other sequences; artificial sequences.	Qy 2438 TTCCCGGGGCTAGCACCGGTGAATTC 2463	Db 2155 TGTGAGCGCCGGCATCCGCAAGGTGCTGTTCCTGAACGGCATCGATGGCGCCATCGTGA 2214 Qy 2378 TGTACCAGTACATGGACCGCCTGTACGTGGCCGCGCGCGC	Db 2035 ACAAGAGCGAGACGAGCTGGTTGAGCCAGATCATCGAGCAGCTGATCAAGAAGAAGAAGA 2094 Qy 2258 TGTACCTGAGCTGGGTGCCCGCCCACAAGGGCATCGGCGCAACGAGCAGATCGACAAGC 2317	2138 GCGAGGTGAACATCGTGACCGACAGCCAGTACGCCCTGGGCATCATCCAGGCCCAGCCCCGGCACCCCGGCCAGCCCCGGCCCGGCCCGGCCCGGCCCGGCCCGGCCCGGCCCGGCCCGGCCCGGCCCGGCCCGGCCCGGCCCGGCCCGGCCCGGCCCGGCCCGGCCCGGCCCC	Qy 1958 AGGAGCCCATCATCGGCGCGAGACCTTCTACGTGGACGGCGCCAACCGGCGAGACCA 2017
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              TCTACCAGTACATGGACGACCTGTACGTGGGCAGCGGCGGCGCCCTAGGATCGATTAAAAGC
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Patent: US 6602705-A 83 05-AUG-2003;
Chiron Corporation; Emeryville, CA
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1 (bases 1 to 2300)

Barnett S.W., Megede, J., Greer, C. and Selby, M.

Expression of HIV polypeptides and production
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 AGAAGATCAAGGCCCTGACCGCCATCTGCGAGGAGATGGAGAAGGAGGGCCAAGATCACCA
                            CCGTGAAGCTGAAGCCCGGCATGGACGGCCCCAAGGTGAAGCAGTGGCCCCTGACCGAGG
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                                                               CCGTGCAGAAGATCGCCATGGAGAGCATCGTGATCTGGGGCAAGACCCCCCAAGTTCCGCC
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/mol_type="unassigned_DNA"
/db_xref="taxon:32630"
/noTe="plasmid_pVR1012x/s_containing
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Oy 314 AGGTGCGCGGCGACAACCCCCGCAGGCAGGCCGAGGCCGAGGGCAGGCCAGGGCA 364	Oy 134 ACTGCCGCGCCCCGCAAGAAGGGCCGAAGTGCGGCAAGGAGGGCCACCAGATGA 193 Db 3084 ACTGCCGCCCCGCCAAGAAGGGCTGCGGAAGTGCGGCAAGGAGGGCCACCAGATGA 193 Oy 194 AGGACTGCACCGAGGCCAAGGAAGGCTTGCTGCGGAAGACTTCCCCAAGGAAGCACTTCCCCAAGGAAGCACTTCCCCAAGGAAGCACTTCCCCAAGGAAGATGA 3143 Oy 194 AGGACTGCACCGAGGCAACTTCTTCAGGAAACTTCCCCACAAGGAACTTCCCCACAAGGAA 3202 Oy 254 AGGACTGCACCGAGGGAACAGAACAGAACAGGCCCAACAAGGCAGAAGA	Query Match B1.4%; Score 2005.2; DB 6; Length 9169; Best Local Similarity 91.4%; Pred. No. 2e-163; Matches 2187; Conservative 0; Mismatches 183; Indels 22; Gaps 5; Matches 2187; Conservative 0; Mismatches 183; Indels 22; Gaps 5; Qy 14 TGGCCGAGGCCATGAGCCAGGGCCACCAGCGCCAACATCCTGATGCAGCGCAGCAACTTCA 73	nd Nabel,G.J. ons of hiv env, gag, and munization 032943-A 169 25-APR-200 OF THE UNITED STATES (US ocation/Qualifiers . 9169 . 9169 . 9169 . 19169 . 19169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 20169 . 2	RESULT 15 AX427931 LOCUS AX427931 DEFINITION Sequence 169 from Patent WO0232943. ACCESSION AX427931 VERSION AX427931. GI:21538018 KEYWORDS SOURCE synthetic construct ORGANISM synthetic construct other sequences; artificial sequences.	Qy 2216 TGGTGAACCAGATCATCGAGCAGCTGATCAAGAAGGAGAAGGTGTACCTGAGCTGGGTGC 2275
2 2 2 2 2 2 2	D	\$ \$ \$ \$ \$ \$ \$ \$	2	B & B & B &	\$ \$ \$ \$ \$ \$ \$ \$ \$
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5303 GCMAGGIGCIGIICCI
2336 GCAAGGTGCTGTTCCTGGACGGCATCGATGGCGGCATCGTGATCTACCAGTA
5243 CCGCCCACAAGGCATCGGCGGCAACGAGCAGGTGGACGGCTTGGTGAGCGCCGGCATCC
2276 CCGCCCACAAGGGCATCGGCGGCAACGAGATCGACAAGCTGGTGAGCAAGGGCATCC
5183 TGGTGAGCCAGATCATCGAGCAGCTGATCAAGAAGGAGAAGGTGTACCTGGCCTGGGTGC
2216 TGGTGAACCAGATCATCGAGCAGCTGATCAAGAAGGAGAAGGTGTACCTGAGCTGGGTGC
5123 CCGACAGCCAGTACGCCCTGGGCATCATCCAGGCCCAGCCCGACAAGAGCGAGC
2156 CCGACAGCCAGTACGCCCTGGGCATCATCCAGGCCCAGCCCGACAAGAGCGAGAGCGAGC
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5003 ACGTGACCGACGCGGCCGCCAGAAGGTGGTGCCCCTGACCGACACCACCAACCA
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4943 CCGAGACCTTCTACGTGGACGGCGCCGCCAACCGCGAGACCAAGCTGGGCAAGGCCGGCT
1976 CCGAGACCTTCTACGTGGACGCCGCCCCCCAACCGCGAGACCAAGATCGGCAAGGCCGGCT
4883 TGAACACCCCCCCCTGGTGAAGCTGTGGTACCAGCTGGAGAAGGAGCCCATCATCGGCG
1916 TGAACACCCCCCCCCTGGTGAAGCTGTGGTACCAGCTGGAGAAGGAAG
4823 CCTGGGAGGCCTGGTGGACCGAGTACTGGCAGGCCACCTGGATCCCCGAGTGGGAGTTCG
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4763 CCGAGAGCATCGTGATCTGGGGCAAGACCCCCCAAGTTCAAGCTGCCCATCCAGAAGGAGA
1796 TGGAGAGCATCGTGAT
4703 TGAAGGGCGCCCACACCAACGACGTGAAGCAGCTGACCGAGGCCGTGCAGAAGATCGCCA
1736 TGCGCACCACCAACCAACGACGTGAAGCAGCTGAACGAGGCCGTGAGAAGATCGCCA
4643 GGACCTACCAGATCTACCAGGAGCCCTTCAAGAACCTGAAGACCCGGCAAGTACGCCCGCA
1676 GGACCTACCAGATCTACCAGGAGCCCTTCAAGAACCTGAAGACCGGCAAGTACGCCAAGA
4583 TGTACTACGACCCCAGCAAGGACCTGATCGCCGAGATCCAGAAGCAGGGCCAGGGCCAGG
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result	Score	Query Match	Query Match Length	DB	ij	Description
; ; ; ; ;	2463	100.0	2463	6	ABL39960	Abl39960 Synthetic
N	2463	100.0	2463	12	ADM73765	Adm73765 HIV-1 pol
ω	2455.4	99.7	2457	8	ACA03547	Aca03547 Synthetic
4	2455.4	99.7	2457	10	ADC13265	Adc13265 DNA of HI
ហ	2442.2	99.2	2469	თ	ABL39959	Abl39959 Synthetic
σ	2442.2	99.2	2469	12	ADM73764	Adm73764 HIV-1 pol
7	2436.2	98.9	2457	σ	ABL39961	Abl39961 Synthetic
8	2436.2	98.9	2457	12	ADM73766	Adm73766 HIV-1 pol
9	2430.2	98.7	2457	8	ACA03548	Aca03548 Synthetic
10	2430.2	98.7	2457	10	ADC13266	Adc13266 DNA of HI
11	2422.6	98.4	2445	8	ACA03546	Aca03546 Synthetic
12	2422.6	98.4	2445	10	ADC13264	Adc13264 DNA of HI
13	2415.6	98.1	3930	10	ADC13230	
14	2414	98.0	3930	10	ADC13231	
15	2414	98.0	3930	10	ADC13232	유
16	2414	98.0	5184	8	ACA03591	Aca03591 Synthetic
17	2414	98.0	5184	10	ADC13279	
18	2383.6	96.8	3531	10	ADC13234	Adc13234 DNA of HI
19	2382	96.7	3537	10	ADC13236	Adc13236 DNA of HI

The present invention describes expression cassettes comprising a polynucleotide sequence encoding a polypeptide comprising immunogenic type C polypeptides. The expression cassettes comprise any of the HIV type C sequences encoding Gag, Pol, Vif, Vpr, Tat, Rev, Vpu, Env or Ne

or Nef

New polynucleotides encoding antigenic HIV Type C polypeptides, useful in applications including DNA immunization or generation of packaging cell lines, particularly in gene therapy.

WPI; 2002-154920/20. Zur Megede J, Barnett SW,

Engelbrecht

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Rensburg

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05-JUL-2000; 2000US-00610313

(CHIR) CHIRON CORP. (UYST-) UNIV STELLENBOSCH.

Claim 1; Fig 9; 233pp; English.

4 5	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20
2108	2108	2108.2	2108.2	2108.2	2108.2	2109.8	2113.6	2113.6	2114.2	2114.2	2115.2	2115.2	2122.8	2122.8	2142	2142	2304.4	2304.4	2322.6	2322.6	2322.6	2322.6	2371	2381	2381
85.6	85.6	85.6	85.6	85.6	85.6	85.7	85.8	85.8	85.8	85.8	85.9	85.9	86.2	86.2	87.0	87.0	93.6	93.6	94.3	94.3	94.3	94.3	96.3	96.7	96.7
4713	4713	5283	5283	3999	3999	3999	4716	4716	3564	3564	2460	2460	2472	2472	2466	2466	3597	3597	3624	3624	3607	3607	3538	5145	5145
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ADC13280	ACA03592	ACC78529	ACA03584	ACC78486	ACC78485	ACC78484	ADC13238	ACA03522	ACC78489	ACC78488	ACC78505	ACA03541	ACC78507	ACA03543	ACC78506	ACA03542	ADC13267	ACA03549	ADC13268	ACA03550	ADC13269	ACA03551	ADC13235	ADC13233	ACA03521
Adc13280 DNA of HI	Aca03592 Synthetic	Acc78529 HIV TatRe	Aca03584 Synthetic	Acc78486 HIV GagCo	Acc78485 HIV GagCo	VIH	NG B	Aca03522 Synthetic		AIH		Syn			-		٧.		Adc13268 DNA of HI	Aca03550 Synthetic	Adc13269 DNA of HI	Synthet	Adc13235 DNA of HI	DNA	Synt

ALIGNMENTS

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Human immunodeficiency virus type C; antigenic HIV type C protein; immunogenic; immunisation; gag; pol; vif; vpr; tat; rev; vpu; env; nef; immunostimulant; gene therapy; gene; ds.
                                                                                                                                                                                                                                 Synthetic construct PR975YM SEQ ID NO:31.
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  New expression cassette comprising a polynucleotide sequence encoding an HIV Pol polypeptide, useful in eliciting an immune response, in DNA immunization, generating of packaging cell lines or in producing HIV Type C proteins.
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) ENGELBRECHT S.
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                                       The invention relates to an expression cassette comprising a polymucleotide sequence encoding an HIV Pol polypeptide. The invention also relates to a recombinant expression system for use in a host cell comprising an expression cassette, where the polymucleotide sequence further comprises control elements capable of driving expression in the selected host cell, a cell comprising an expression cassette where the polymucleotide sequence further comprises control elements compatible with the expression in the cell and a composition for generating an immunological response, comprising an expression cassette. The expression cassette and the methods of the invention are useful in eliciting an immune response, in DNA immunisation, in generation of packaging cell lines and in producing HIV Type C proteins. This sequence represents an HIV-1 polymucleotide of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim
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Best Local Similarity
Matches 2463; Conserva 361 361 301 301 181 121 601 541 541 481 481 421 421 241 181 121 721 601 61 61 GTCGACGCCACCATGGCCGAGGCCATGAGCCAGGCCACCAGCGCCAACATCCTGATGCAG GACGGCCCCAAGGTGAAGCAGTGGCCCCTGACCGAGGAGAAGATCAAGGCCCCTGACCGCC GCCCACCAGATGAAGGACTGCACCGAGCCCCAGGCCCAACTTCTTCCGCGAGGACCTTGGCC CACATCGCCCGCAACTGCCGCCCCCCCCCCAAGAAGGCTGCTGGAAGTGCGGCAAGGAG CGCAGCAACTTCAAGGGCCCCCAAGCGCATCATCAACTGCTTCAACTGCGGCAAGGAGGGC ATGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAG GGCACCCTGAACTTCCCCCAGATCACCCTGTGGCAGCGCCCCCTGGTGAGCATCAAGGTG GGCCACCAGATGAAGGACTGCACCGAGCGCCAGGCCAACTTCTTCCGCGAGGACCTGGCC CACATCGCCCGCAACTGCCGCGCCCCCCGCAAGAAGGGGCTGCTGGAAGTGCGGCAAGGAG CGCAGCAACTTCAAGGGCCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGC ACCCTGAACTTCCCCATCAGCCCCATCGAGACCGTGCCCGTGAAGCTGAAGCCCGGCATG CTGATCGGCCCACCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGC CTGATCGGCCCCACCCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGC GTGCGCCAGTACGACCAGATCCTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTG GTGCGCCAGTACGACCAGATCCTGATCGAGATCTGCGGCAAGAAGGCCCATCGGCACCGTG ATGAGCCTGCCCGGCAAGTGGAAGCCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAG GGCGGCCAGATCAAGGAGGCCCTGCTGGACACCCGGCGCGCGACACCGTGCTGGAGGAG GGCACCCTGAACTTCCCCCAGATCACCCTGTGGCAGCGCCCCCTGGTGAGCATCAAGGTG AGCCGCGAGCTGCAGGTGCGCGGCGACAACCCCCGCAGCGAGGCCGGCGCCGAGCGCCAG TTCCCCAGGGCAAGGCCCGCGAGTTCCCCCAGCGAGCAGAACCGCGCGCAACAGCCCCCACC TTCCCCCAGGGCAAGGCCCGCGAGTTCCCCCAGCGAGCAGAACCGCGCCAACAGCCCCACC **ACCCTGAACTTCCCCATCAGCCCCATCGAGACCGTGCCCGGGAAGCTGAAGCCCGGCATG** 100.0%; ilarity 100.0%; Conservative (**0** Score 2463; DB 12; Pred. No. 4.4e-297;); Mismatches 0; Indels Length <u>.</u> Gaps 300 180 120 60 60 780 720 720 660 660 600 600 540 540 480 480 420 420 360 360 300 240 180 120 0

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           AGCATCGTGATCTGGGGCAAGACCCCCAAGTTCCGCCTGCCCATCCAGAAGGAGGAGACCTGG
                                TACCAGATCTACCAGGAGCCCTTCAAGAACCTGAAGACCGGCAAGTACGCCAAGATGCGC
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05-JUL-2001;
31-AUG-2001;
16-JAN-2002;
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16-JAN-2002;
                                                                                                                Immunogenic HIV polypeptide; human immunodeficiency virus; HIV; vaccine; gene therapy; packaging cell line; humoral immune response; cellular immune response; gene delivery vector; DNA immunisation; ds.
                                                                                                                                               Synthetic DNA ecoding immunogenic HIV peptide #30
                                                 05-JUL-2002;
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               GTGCGCCAGTACGACCAGATCCTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTG
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31-AUG-2001;
16-JAN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to a novel expression cassette comprising a polymucleotide sequence encoding a polypeptide including an HIV Gag, Int, Nef, pisknaseH, Pol, Tat, Prot, or Rev polypeptide. The novel expression cassette can be used to treat HIV type C by gene therapy or used in the development of a vaccine. The gene delivery vector is administered intramuscularly, intramucosally, intranasally, subcutaneously, intradermally, transdermally, intravaginally, subcutaneously, intradermally, transdermally, intravaginally, orally or intravenously. The expression cassette is useful for immunisation, generating packaging cell lines and producing HIV polypeptides. This polymucleotide sequence represents the DNA of an HIV Type C related sequence of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New expression cassette comprising a polynucleotide sequence encopolypeptide including an HIV Gag, Env, Int, Nef, p15RnaseH, Pol, Prot, or Rev polypeptide, useful for immunization, or generating packaging cell lines.
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GTGCGCCAGTACGACCAGATCCTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTG
                                                                          ATGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAG
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;; Pred. No. 3.9e-296;
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ABL39959 standard; DNA; ВÞ

15-MAY-2002 (first entry)

Synthetic construct PR975(+) SEQ ID NO:30

Human immunodeficiency virus type C; antigenic HIV type C protein; immunogenic; immunisation; gag; pol; vif; vpr; tat; rev; vpu; env; nef; immunostimulant; gene therapy; gene; ds.

Human immunodeficiency virus; type C

Synthetic.

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Best Local Similarity
Matches 2460; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New polynucleotides encoding antigenic HIV Type C polypeptides, useful in applications including DNA immunization or generation of packaging cell lines, particularly in gene therapy.
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                   ATGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAG
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Pred. No. 1.7e-294;
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                                                                                   CGCCAGCTGTGCAAGCTGCTGCGCGGCGCCCAAGGCCCTGACCGACATCGTGCCCCTGACC
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              GAGGAGGCCGAGCTGGAGCTGGCCGAGAACCGCGAGATCCTGCGCGAGCCCCGTGCACGGC
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HIV-1; gene; ds; HIV pol; immune response; DNA immunisation; HIV type C protein; immunostimulant.
                               HIV-1 polynucleotide
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> 05-JUL-2000; 05-JUL-2001; 2001US-00899575 US2003223961-A1 Human immunodeficiency virus) MEGEDE J Z.
>) BARNETT S W.
>) ENGELBRECHT S.
>) RENSBURG E J V. Barnett SW, 2000US-00610313 Engelbrecht S, Rensburg

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New expression cassette comprising a polynucleotide sequence encoding an HIV Pol polypeptide, useful in eliciting an immune response, in DNA immunization, generating of packaging cell lines or in producing HIV Type WPI; 2004-060515/06

Claim 1; SEQ ID NO 30; 160pp; English.

The invention relates to an expression cassette comprising a polynucleotide sequence encoding an HIV Pol polypeptide. The invention also relates to a recombinant expression system for use in a host cell comprising an expression cassette, where the polynucleotide sequence further comprises control elements capable of driving expression in the selected host cell, a cell comprising an expression cassette where the polynucleotide sequence further comprises control elements compatible with the expression in the cell and a composition for generating an immunological response, comprising an expression cassette. The expression cassette and the methods of the invention are useful in eliciting an immune response, in DNA immunisation, in generation of packaging cell lines and in producing HIV Type C proteins. This sequence represents an HIV-1 polynucleotide of the invention.

Sequence 2469 BP; 571 A; 833 C; 761 G; 304 T; 0 U; 0 Other;

Match 99.2%; Local Similarity 99.6%; GTCGACGCCACCATGGCCGAGGCCATGAGCCAGGCCACCAGCGCCAACATCCTGATGCAG GGCCACCAGATGAAGGACTGCACCGAGGCGCAAGCTTCTTCCGCGAGGACCTGGCC CACATCGCCCGCAACTGCCGCGCGCCCCCCGCAAGAAGGGCTGCTGGAAGTGCCGGCAAGGAG CACATOGOCOGCAACTGCOGCGCCCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAG CGCAGCAACTTCAAGGGCCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGC GTCGACGCCACCATGGCCGAGGCCATGAGCCAGGGCCACCAGCGCCAACATCCTGATGCAG AGCCGCGAGCTGCAGGTGCGCGGCGACAACCCCCGCAGCGAGCCGCGGCGCCGAGCGCCAG TTCCCCCAGGGCAAGGCCGCGAGTTCCCCCAGCGAGCAGAACCGCGCCCAACAGCCCCCACC TTCCCCAGGGCAAGGCCCGCGAGTTCCCCCAGCGAGCAGAACCGCGCGCAACAGCCCCCACC GGCCACCAGATGAAGGACTGCACCGAGCGCCAGGCCAACTTCTTCCGCGAGGACCTGGCC CGCAGCAACTTCAAGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGC AGCCGCGAGCTGCAGGTGCGCGGCGACAACCCCCGCAGCGAGGCCGGCGCCGAGCGCCAG Conservative Score 2442.2; | Pred. No. 1.7e-0; .7e-294; DB 12; Length Indels 2469; 6; Gaps 360 300 180 120 60 60 360 300 240 180 120

1435 ATCCAGAAGCTGGTGGGCAAGCTGAACTGGGCCAGCCAGATCTACCCCGGCATCAAGGTG 1494	75 GACAAGTGGACCGTGCAGCCCATCGAGCTGCCCGAGAAGGAGGCTGGACCGTGAACGAC 14	1315 CCCGACAAGAAGCACCAGAAGGAGCCCCCCTTCCTGTGGATGGGCTACGAGCTGCACCCC 1374	CAGCACCGCCCAAGATCGAGGAGCTGCGCAAGCACCTGCTGCGCTGGGGCTTCACCACC 1	1201 GAGATCGTGATCTACCAGGCCCCCCTGTACGTGGGCAGCCGACCTGGAGATCGGC 1254	1141 CCCAGCATCTTCCAGAGCAGCATGACCAAGATCCTGGAGCCCTTCCGCGCCGCAACCCC 1200	1081 AACGAGACCCCCGGCATCCGCTACCAGTACAACGTGCTGCCCCAGGGCTGGAAGGGCAGC 1140	1021 AGCGTGCCCCTGGACGAGGACTTCCGCAAGTACACCGCCTTCACCATCCCCAGCATCAAC 1080	961 CCCGCCGGCCTGAAGAAGAAGAAGAAGACGTGACCGTGGTGGGACGTGGGCGACGCCTACTTC 1020	901 TTCCGCGAGCTGAACAAGCGCACCCAGGACTTCTGGGAGGTGCAGCTGGGCATCCCCCAC 960	841 AACACCCCCGTGTTCGCCATCAAGAAGAAGAAGACACCAAGTGGCGCAAGCTGGTGGAC 900	781 ATCTGCGAGGAGATGGAGGAGGGCAAGATCACCAAGATCGGCCCCGAGAACCCCTAC 840	721 GACGGCCCCAAGGTGAAGCAGTGGCCCCTGACCGACGAGAAGAAGATCAAGGCCCTGACCGCC 780 721 GACGGCCCCAAGGTGAAGCAGTGGCCCCTGACCGACGAGGAGAAGATCAAGGCCCTGACCGCC 780	661 ACCCTGAACTTCCCCATCAGCCCCATCGAGACCGTGCCCGTGAAGCTGAAGCCCGGCATG 720 661 ACCCTGAACTTCCCCATCAGCCCCATCGAGACCGTGCCCGTGAAGCTGAAGCCCGGCATG 720	601 CTGATCGGCCCCACCCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGC 660	541 GTGCGCCAGTACGACCAGATCCTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTG 600 541 GTGCGCCAGTACGACCAGATCCTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTG 600	481 ATGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAG 540	421 GGCGGCCAGATCAAGGAGGCCCTGCTGGACACCGGCGCCGACGACACCGTGCTGGAGGAG 480
RESULT 7 ABL39961 ID ABL39961 standard; DNA; 2457 BP.	Qy 2455 GGTGAATTC 2463 Db 2461 GGTGAATTC 2469	OY 2395 GACCTGTACGTGGGCAGCGGCGCCTAGGATCGATTAAAAGCTTCCCGGGGCTAGCACC 2454	QY 2335 CGCAAGGTGCTGTTCCTGGACGGCATCGATGGCGGCATCGTGATCTTACCAGTACATGGAC 2394	2275 C 2281 C	2215 CTGGTGAACCAGATCATCGAGCAGCTGATCAAGAAGGAGAAGGTGTACCTGAGCTGGGTG	55 ACCGACAGECAGTACGCCCTGGGCATCATCCAGGCCCAACAGCGACAAGAGCGAGAGAGA	2095 ACCGAGCTGCAGGCCATCCAGCTGGCCCTGCAGGACAGCGGCAGCGAAGATGGACAGTGGAGTGAACATCGTG	2035 TACGTGACCGACGGCGGCAGAAGATGGTGAGCCTGACCGAGACCACACAGAAG	1975 GCCGAGACCTTCTACGTGGACGGCGCCGCCGAGACCAAGATCGGCAAGGCCGGC	1915 GTGAACACCCCCCCTGGTGAAGCTGTGGTACCAGCTGGAGAAGGAGCCCATCATCGGC	1855 ACCTGGGAGACCTGGTGGACCGACTACTGGCAGGCCACCTGGATCGCGAGTGGGAGTTC	1795 ATGGAGAGCATCGTGATCTGGGGCAAGACCCCAAGTTCCGGCCTGCCCATCCAGAAGGAG	1735 ATGCGCACCGCCCAACGAACGAACGAGCAGCTGACCGAGGCCGTGCAGAAGCAGTCGCC	1675 TGGACCTACCAGATCTACCAGGAGCCCTTCAAGAACCTGAAGAACCGGCAAGTACGCCAAG	1615 GITGIACIACGACC CHAGCANGACCIGGIGGICGC CGAGAIC CAGAGGACCAGGACCAGACCA	155 GROWN CHARLES TO THE CONTROL OF	1495 CG 1501 CG

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Best Local Similarity
Matches 2454; Conserv
                                                                                                                                                                                                                                                                                                                                                                                 The present invention describes expression cassettes comprising a polynucleotide sequence encoding a polypeptide comprising immunogenic HI type C polypeptides. The expression cassettes comprise any of the HIV type C sequences encoding Gag, Pol, Vif, Vpr, Tat, Rev, Vpu, Env or Nef (I). (I) have immunostimulant activity and can be used in gene therapy. The HIV type C polynucleotides are useful in applications including DNA immunisation, generation of packaging cell lines, and production of HIV Type C proteins. The polynucleotides are particularly useful in gene therapy and DNA immunisation applications. ABL39942 to ABL40054 and ABB06204 to ABB06215 represent sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human immunodeficiency virus type C; antigenic HIV type C protein; immunogenic; immunisation; gag; pol; vif; vpr; tat; rev; vpu; env; immunostimulant; gene therapy; gene; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New polynucleotides encoding antigenic HIV Type C polypeptides, useful applications including DNA immunization or generation of packaging cell lines, particularly in gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human immunodeficiency virus; type C
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                                                                                                                                                                                                                                                                                                                                                         Sequence 2457
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New expression cassette comprising a polynucleotide sequence encoding an HIV Pol polypeptide, useful in eliciting an immune response, in DNA immunization, generating of packaging cell lines or in producing HIV Type
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) RENSBURG E J V.
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The invention relates to an expression cassette comprising a polynucleotide sequence encoding an HIV Pol polypeptide. The invention also relates to a recombinant expression system for use in a host cell comprising an expression cassette, where the polynucleotide sequence further comprises control elements capable of driving expression in the selected host cell, a cell comprising an expression cassette where the polynucleotide sequence further comprising an expression cassette where the polynucleotide sequence further comprises control elements compatible with the expression in the cell and a composition for generating an immunological response, comprising an expression cassette. The expression cassette and the methods of the invention are useful in eliciting an immune response, in DNA immunisation, in generation of packaging cell lines and in producing HIV Type C proteins. This sequence represents an HIV-1 polynucleotide of the invention.

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Sequence 2457 BP; 566 A; 837 C; 754 G; 300 ; 0 u, 0 Other |

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CCGAGGCCATGAGCCAGGCCACCAGCGCCAACATCCTGATGCAGCGCAGC 66	98.7%; Score 2430.2; DB 8; similarity 99.6%; Pred. No. 5.2e-293;	subject such as a mammal, particularly a human. This sequence encodes a human immunodeficiency virus immunogenic peptide Sequence 2457 BP; 568 A; 830 C; 758 G; 301 T; 0 U; 0 Other;	immune responses against HIV in a subject, or for inducing neutralising antibodies against HIV. The gene delivery vector comprising the polynucleotide is also useful for DNA immunisation of, or for generating an immune response (e.g. a humoral or cellular immune response) in, a	derived from different HIV subtypes. The polynucleotide is useful for immunisation, generation of packaging cell lines, or production of HIV polypeptides. The polynucleotide and its encoded proteins are useful as immunogenic compositions or vaccines for generating humoral or cellular	Example 1; Fig 36; 262pp; English. The invention describes a synthetic polynucleotide encoding 2 or more immunogenic HIV polypeptides, where at least 2 of the polypeptides are	polypeptides, useful as immunogenic compositions or vaccines for generating humoral or cellular immune responses against HIV in a subject, especially humans.	WPI; 2003-221602/21.	(CHIR) CHIRON CORP.	31-AUG-201; 2010US-0316860P 16-JAN-2002; 2002US-034972BP 16-JAN-2002; 2002US-0349793P 16-JAN-2002; 2002US-0349871P	05-JUL-2002; 2002WO-US021421.	WO2003004657-A1.	gene caseapy, packaging cert this; number temporar immune response; gene delivery vector; DNA immunisation; ds. Synthetic.	Synthetic DNA ecoding immunogenic HIV peptide #31. Immunogenic HIV polypeptide; human immunodeficiency virus; HIV; vaccine;	ACA03548; 22-MAY-2003 (first entry)	77 9 548 ACA03548 standard; DNA; 2457 BP.	2461 TTC 2463 2455 TTC 2457	2401 TACGTGGGCAGCGGCCGTAGGATCGATTAAAAGCTTCCCGGGGCTAGCACCGGTGAA 2460	
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GAGACCTGGTGGACCGACTACTGGCAGGCCACCTGGATCCCCGAGTGGGAGTTCGTGAAC
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                                                 CTGCAGGCCATCCAGCTGGCCCTGCAGGACAGCGGCGAGGTGAACATCGTGACCGAC
                                                                                   CTGCAGGCCATCCAGCTGGCCCTGCAGGACAGCGGCGAGGTGAACATCGTGACCGAC
                                                                                                                            ACCTTCTACGTGGACGGCGCCAACCGCGAGACCAAGATCGGCAAGGCCGGCTACGTG
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                                                                                                                                                                                                                                                                                                                     ession cassette; HIV Gag; Env; Int; Nef; p15RnaseH; Pol; Tat; Prot; HIV type C; gene therapy; vaccine; immunisation; HIV; ds.
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05-JUL-2002; 2002WO-US021420 16-JAN-2003 WO2003004620-A2

(CHIR) CHIRON CORP.
UNIV STELLENBOSCH

05-JUL-2001; 2001US-0303192P 31-AUG-2001; 2001US-0316860P 16-JAN-2002; 2002US-0349871P

Zur Megede Ç Barnett SW, Lian ۲, Engelbrecht Ś Van Rensburg 띧

WPI; 2003-221593/21.

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New expression cassette comprising a polynucleotide sequence encoding polypeptide including an HIV Gag, Env, Int, Nef, p15RnaseH, Pol, Tat, Prot, or Rev polypeptide, useful for immunization, or generating packaging cell lines. ø

Disclosure; Fig 42; 301pp; English.

The invention relates to a novel expression cassette comprising a polynucleotide sequence encoding a polypeptide including an HIV Gag, Env, Int, Nef, pl5RnaseH, Pol, Tat, Prot, or Rev polypeptide. The novel expression cassette can be used to treat HIV type C by gene therapy or used in the development of a vaccine. The gene delivery vector is administered intramuscularly, intramucosally, intranasally, subcutaneously, intradermally, transdermally, intravaginally, intravaginally, orally or intravenously. The expression cassette is useful for immunisation, generating packaging cell lines and producing HIV polypeptides. This polynucleotide sequence represents the DNA of an HIV Type C related sequence of the invention.

BP; 568 A; 830 C; 758 G; 301 T; 0 U; 0 Other;

Query Match Best Local Similarity 98.7**%**; 99.6**%**; Score 2430.2; DB 10; Pred. No. 5.2e-293; Length 2457;

Qy 1027 Db 1021	Qy 967 Db 961	Oy 907	Qy 847 Db 841	Qy 787 рь 781	Oy 727 Db 721	Qy 667 Db 661	Qy 607 Db 601	Qy 547 Db 541	Qy 487 Db 481	7	Qy 367 Db 361		47 41	Qy 187 Db 181	Qy 127 Db 121	Db 61		Matches 2448 Qy 7
CCCTGGACGAGGACTTC	ggcctgaagaagaagaag ggcctgaagaagaagaag	gagctgaacaagcgcacc gagctgaacaagcgcacc	cccgigitcgccatcaag cccgigitcgccatcaag	gaggagatggagaaggagk gaggagatggagaaaggaag	CCCAAGGTGAAGCAGTGGG 	AACTTCCCCATCAGCCCC	GGCCCACCCCGTGAACI	CAGTACGACCAGATCCTGI	CTGCCCGGCAAGTGGAAGC CTGCCCGGCAAGTGGAAGC	CAGATCAAGGAGGCCCTGO CAGATCAAGGAGGCCCTGO	CTGAACTTCCCCCAGATC!	BAGCTGCAGGTGCGCGGCC 	CAGGGCAAGGCCCGCGAGT 	CAGATGAAGGACTGCACCC 	gcccgcaactgccgcgccc 	NACTICAAGGCCCCAAG	GCACCATGGCCGAGGCCA	; Conservative GCCACCATGGCCGAGGCC;
CCCCTGGACGAGGACTTCCGCAAGTACACCGCCTTCACCATCCCCAGCATCAACAACGA 	GGCCTGAAGAAGAAGAAGAAGACGTGACCGTGCTGGACGTGGGCGACGCCTACTT!	GAGCTGAACAAGCGCACCCAGGACTTCTGGGAGGTGCAGCTGGGCATCCCCCAC	CCCGTGTTCGCCATCAAGAAGAAGGACAGCACCAAGTGGCGCAAGCTGGTGGACTTC	GAGGAGATGGAGAAGGAGGGGCAAGATCACCAAGATCGGCCCCGAGAACCCCTACAACAC	CCCAAGGTGAAGCAGTGGCCCCTGACCGAGGAGAAGATCAAGGCCCTGACCGC	CATCAGCCCCATCGAGACCGTGCCCGTGAAGCTGAAGCCCGGCATGGACGGC	CCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGCAC 	CAGTACGACCAGATCCTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTGCTGATC 	CTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAGGTGCGC	CAGATCAAGGAGGCCCTGCTGGACACCGGGCGCGACGACACCGTGCTGGAGGAGATGAGCCGAGATCAAGGAGGGCCCTGCTGGACGACACCGGGGGAGACACCGTGCTGGAGGAGATGAGCCAGACACCGTGCTGGAGGAGATGAGC	CTGAACTTCCCCCAGATCACCCTGTGGCAGCGCCCCCTGGTGAGCATCAAGGTGGGCGGCCTGGAACTTCCCCCCAGATCACCTGTGGCAGCGCCCCCTGGTGAGCATCAAGGTGGGCGGC	GAGCTGCAGGTGCGCGGCGACAACCCCCGCAGCGAGGCCGAGCGCCGAGCGCCAAGGGCACC	CAGGGCAAGGCCCGCGAGTTCCCCAGCGAGCAGAACCGCGCCAACAGCCCCACCAGCCGC	CAGATGAAGGACTGCACCGAGCGCCAAGGCCAACTTCTTCCGCGAGGAGCTGGCCTTCCCC	GCCCGCAACTGCCGCGCCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGGCCA 	AACTICAAGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGCCACATC	GCCACCATGGCCGAGGCCAGGCCCAACATCCTGATGCAGCGCAGC	0; Mismatches 3;
CATCCCCAGCATCAACAACG 	3GGCGACGCCTACTTCAGCGTG	SCTGGGCATCCCCACCCCGC SCTGGGCATCCCCACCCCGCC	3090aagctggtggacttco 3090aagctggtggacttco	CCCGAGAACCCCTACAACA	DAAGGCCCTGACCGCCATCTGC	9CTGAAGCCCGGCATGGACG 9CTGAAGCCCGGCATGGACG	JACCCAGCTGGGCTGCACCCTG	GCCATCGGCACCGTGCTGA	:GGCGGCTTCATCAAGGTGC :GGCGGCTTCATCAAGGTGC	CACCGTGCTGGAGGAGATGA	GTGAGCATCAAGGTGGGCG 	::GGCGCCGAGCGCCAGGGCA 	GCCAACAGCCCCACCAGCC	CGCGAGGACCTGGCCTTCC	BAAGTGCGGCAAGGAGGGCC 	TIGCGGCAAGGAGGGCCACA	DAACATCCTGATGCAGCGCA	; Indels 6; Gaps
AG 1086 - AG 1080	7G 1026 - 1G 1020	CC 960 - - -	CGC 900	CC 846 	GC 786 - 780	GC 726 - GC 720	TG 666 	TC 606	GC 546 GC 540		GC 426 - - GC 420	CC 366	GC 306 - GC 300	CC 246 	AC 186 - AC 180	TC 126		8 1; GC 66
	-						<u> </u>	· · ·					<u>.</u>					
da Yo	p - 49	, B &	B 5	. B &	, B &	}	? B &	;	, B &	B 8	B &	S & S	, B &	D A	₹ B \$	\$ B	<i>Q</i> 8	
Qy 2101 CTGCAGGCCATCCAGCTGGCCCTGCAGGACGCAGCGAGCG	2041	1981	1921 1921	1861	1801	1741	1681	1621 1621	1561 1561	1501 1501	1441	1381	1321	1261	1261 CGCGCCAAGATCGACGA		1147	. .

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The invention describes a synthetic polynucleotide encoding 2 or more immunogenic HIV polypeptides, where at least 2 of the polypeptides are derived from different HIV subtypes. The polynucleotide is useful for immunisation, generation of packaging cell lines, or production of HIV polypeptides. The polynucleotide and its encoded proteins are useful as immunogenic compositions or vaccines for generating humoral or cellular immune responses against HIV in a subject, or for inducing neutralising polynucleotide against HIV. The gene delivery vector comprising the polynucleotide is also useful for DNA immunisation of, or for generating an immune response (e.g. a humoral or cellular immune response) in, a subject such as a mammal, particularly a human. This sequence encodes a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-JUL-2001; 2001US-0303192P.
31-AUG-2001; 2001US-0316860P.
16-JAN-2002; 2002US-0349728P.
16-JAN-2002; 2002US-0349793P.
16-JAN-2002; 2002US-0349871P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Immunogenic HIV polypeptide; human immunodeficiency virus; HIV; vaccine; gene therapy; packaging cell line; humoral immune response; cellular immune response; gene delivery vector; DNA immunisation; ds.
                                                                                                                                                                                                                                                                                                            New synthetic polynucleotides encoding antigenic HIV type B and/or type polypeptides, useful as immunogenic compositions or vaccines for generating humoral or cellular immune responses against HIV in a subject
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-JUL-2002;
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          GCAGCGGCGGCCCTAGGATCGATTAAAAGCTTCCCCGGGGCTAGCACCGGT
                                             TTCCTGGACGGCATCGACGGCATCGTGATCTACCAGTACATGGACGACCTGTACGTG
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                                     TTCCTGGACGGCATCGATGGCGGCATCGTGATCTACCAGTACATGGACGACCTGTACGTG
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ADC13264;
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expression cassette; HIV Gag; Env; Int; Nef; p15RnaseH; Pol; Tat; Rev; HIV type C; gene therapy; vaccine; immunisation; HIV; ds. DNA of HIV construct entry) p2Pol-opt-YMWM_C SEQ ID ĕ 43

immunodeficiency virus

05-JUL-2002; 2002WO-US021420

05-JUL-2001; 2001US-0303192P 31-AUG-2001; 2001US-0316860P 16-JAN-2002; 2002US-0349871P

(CHIR) (UYST-) CHIRON CORP.
UNIV STELLENBOSCH

'n Barnett SW, Lian , K Engelbrecht Ø Van Rensburg 짇

2003-221593/21.

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New expression cassette comprising a polynucleotide sequence encorpolypeptide including an HIV Gag, Env, Int, Nef, p15knaseH, Po1, Prot, or Rev polypeptide, useful for immunization, or generating packaging cell lines. Pol, Tat, 9

Disclosure; Fig 40; 301pp; English

RESULT 12
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AC ADC13
AC ADC13
XX DNA C
XX Rev;
OX Humar
XX WO200
XX WO200
XX O5-JI
PR 16-JJ
PR The invention relates to a novel expression cassette comprising a polynucleotide sequence encoding a polypeptide including an HIV Gag, Int, Nef, piSranseH, Pol, Tat, Prot, or Rev polypeptide. The novel expression cassette can be used to treat HIV type C by gene therapy cused in the development of a vaccine. The gene delivery vector is administered intransecularly, intranseally, subcoutaneously, intradermally, transdermally, intravaginally, 유

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GAGCTGAACAAGCGCACCCAGGACTTCTGGGAGGTGCAGCTGGGCATCCCCCACCCCGCC
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   TACGTGGACGGCGCCAACCGCGAGACCAAGATCGGCAAGGCCGGCTACGTGACCGAC
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The invention relates to a novel expression cassette comprising polynucleotide sequence encoding a polypeptide including an HIV Int, Nef, p15RnaseH, Pol, Tat, Prot, or Rev polypeptide. The nov expression cassette can be used to treat HIV type C by gene ther
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(UYST-)
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31-AUG-2001; 2001US-0316860P.
16-JAN-2002; 2002US-0349871P.
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UNIV STELLENBOSCH
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05-JUL-2002; 2002WO-US021420

05-JUL-2001; 2001US-0303192P 31-AUG-2001; 2001US-0316860P 16-JAN-2002; 2002US-0349871P

(CHIR) (UYST-) CHIRON CORP.
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New expression cassette comprising a polynucleotide sequence encorpolypeptide including an HIV Gag, Env, Int, Nef, p15RnaseH, Pol, Prot, or Rev polypeptide, useful for immunization, or generating packaging cell lines. 2003-221593/21. encoding

Disclosure; Fig 7; 301pp;

English

The invention relates to a novel expression cassette comprising

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Best Local Similarity 99.5%;
Matches 2433; Conservative
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16-JAN-2002; 2002US-0349871P.
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    TGGAGAAGGAGGGCAAGATCACCAAGATCGGCCCCGAGAACCCCCTACAACACCCCCGTGT
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Disclosure; Fig 8; 301pp; English.

The invention relates to a novel expression cassette comprising a polynucleotide sequence encoding a polypeptide including an HIV Gag, Env, Int, Nef, piSRnaseH, Pol, Tat, Prot, or Rev polypeptide. The novel expression cassette can be used to treat HIV type C by gene therapy or used in the development of a vaccine. The gene delivery vector is administered intramuscularly, intramocosally, intranasally, subcutaneously, intradermally, transdermally, intravaginally, intravesion cassette is useful for immunisation, generating packaging cell lines and producing HIV polypeptides. This polynucleotide sequence represents the DNA of an HIV Type C related sequence of the invention.

3930 BP; 889 A; 1366 C; 1214 G; 461 T; 0 U; 0 Other;

Conservative 98.0%; 0 Score 2414; DB 10; Pred. No. 4.9e-291; 0; Mismatches 5; Indels Length 3930; 6; Gaps

AGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGCCACATCGCCCGCA TGGCCGAGGCCATGAGCCAGGCCAGCGCGCAACATCCTGATGCAGCGCAGCAACTTCA TCCCCCAGATCACCCTGTGGCAGCGCCCCCTGGTGAGCATCAAGGTGGGCGGCCAGATCA AGGTGCGCGGCGACAACCCCCGCAGCGAGGCCGCCGAGCGCCAGGGCACCCCTGAACT AGGTGCGCGGCGACAACCCCCGCAGCGAGGGCCGGGGGCGCCGAGGGCACCCTGAACT AGGCCCGCGAGTTCCCCAGCGAGCAGCAGAACCGCGCCAACAGCCCCACCAGCCGCGAGCTGC AGGACTGCACCGAGCCCAGGCCAACTTCTTCCGCGAGGACCTGGCCTTCCCCCAGGGCA AGGACTGCACCGAGCCCAGGCCAACTTCTTCCGCGAGGACCTGGCCTTCCCCCAGGGCA ACTGCCGCCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGGCCACCAGATGA ACTGCCGCGCCCCCCGAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGGCCACCAGATGA 193 AGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGCCACATCGCCCGCA TCGCCGAGGCCATGAGCCAGGCCACCAGCGCCAACATCCTGATGCAGCGCAGCAACTTCA AGGCCCGCGAGTTCCCCAGCGAGCAGAACCGCGCCAACAGCCCCACCAGCCGCGAGCTGC 1846 1786 1726 1666 1606 1546 373 313 253 133 433

AGGAGGCCCTGCTGGACACCGGCGCGACGACGACACCGTGCTGGAGGAGATGAGCCTGCCCG TCCCCCAGATCACCCTGTGGCAGCGCCCCCTGGTGAGCATCAAGGTGGGCGGCCAGATCA AGGAGGCCCTGCTGGCCACCGGCGCCGACGACACCGTGCTGGAGGAGATGAGCCTGCCCG 1966 1906 493

GCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAGGTGCGCCAGTACG GCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAGGTGCGCCAGTACG 2026 553

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CL9715108 OBIFCC021
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ALIGNMENTS

ORIGIN	FEATURES Source		AUTHORS TITLE JOURNAL COMMENT	VERSION KEYWORDS SOURCE ORGANISM REFERENCE	RESULT 1 CL293849/c LOCUS DEFINITION ACCESSION
/outsine ware maye / mol type="genomic DNA" / mol type="genomic DNA" / strain="W22 (ACR, bz1-m9)" / cultivar="UniformMu" / db_xref="taxon:4577" / db_xref="taxon:4577" / clone="0280349-08A1-C03" / clone="0280349-08A1-C03" / clone="ib="UniformMu MuTAIL Library" / clone="ib="taxon: 7000-pCR4; DNA flanking Mu transposon / note="vector: 7000-pCR4; DNA flanking Mu transposon / insertions in Mu inactive lines were extracted from the UniformMu maize population by the thermo assymmetric interlaced pCR (TAIL) protocol using primers specific for the Mu terminal inverted repeat and a set of 16 arbitrary primers. Amplicons were size enriched using Sepharose 400 spin columns and cloned into the TOPO pCR4 vector."	Class: transposon insertion site. Class: transposon insertion site. Location/Qualifiers 130	Plant Molecular and Cellular Biology Program University of Florida PO 110690 Gainesville, FL 32611-0690, USA Tel: 352-392-1928 x322 Email: drm@ufl.edu Sequence flanking probable Mu insertion site in UniformMu line:	Latshaw,S., Tan,BC., Settles,A.M. and McCarty,D.R. Sequence tagged transposon insertions from the UniformMu maize population Unpublished (2003) Contact: Donald R. McCarty	CL293849.1 GI:42541978 GSS. Zea mays Zea mays Zea mays Shermatophyta; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD clade; Panicoldeae; Andropogoneae; Zea. 1 (bases 1 to 330)	CL293849 330 bp DNA linear GSS 12-FEB-2004 02S0349-08A1-CO3 UniformMu MuTAIL Library Zea mays genomic clone 02S0349-08A1-CO3, genomic survey sequence. CL293849

Result No.

Ω a

QY 189 GATGAAGGACTGCACCGAGCCCAGGCCAACTTCTTCCGCGAGGACCTGGCCTTCCCCCA	Query Match Query Match Best Local Similarity 43.2%; Pred. No. 2.1e-07; Matches 709; Conservative 0; Mismatches 906	/note="Oryza sativa exon trapports or a sativa exon trapports or sativation exon trapports or sativatio	UX	orga/orga/	FEATURES Location/Qualifiers ### ROUTE	OD.	Tel: 86-10-80481559 Fax: 86-10-80488676	cs , Beijing	JOURNAL Unpublished (2004) COMMENT Contact: Chen Chen	An analysis its comparis	Jiao, Y., Sun, N., Zhang, X., Bao, J., Sun, D., Wong, G.K.S., Deng, X.W. and Wang, J.	(bases 1 to 2886) Ciyra. T. Wanco I Chan C tim Y	Eukaryota; Viridiplar Spermatophyta; Magnol	SOURCE Oryza sativa (indica cultivar-group) ORGANISM Oryza sativa (indica cultivar-group)	VERSION CL96//55 VERSION CL967755.1 GI:52390149 KEYWORDS GS8.	Z		RESULT 2	Db 30 GATGGCCCAAAAGTAAGG 13	Qy 721 GACGGCCCCAAGGTGAAG 738	Db 90 ACCTTABATTTTCCCATTAGTCCTATTGAAACTGTACCAGTAAAATTAAAGCCAGGAATG	Qy 661 ACCCTGAACTTCCCCCATCAGCCCCATCGAGACCGTGCCCGTGAAGCTGAAGCCCGGCATG	Db 149 TIAGTAGGACCTACACCTGTCAACATAATTGGAAGAAATCTGTTGACTCAGATTGG-	QY 601 CTGATCGGCCCCACCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGC	Db 209 GTAAGACAGTATGATCAGGTACCCATAGAAATCTGTGGGCATAAAGCTATAGGTACGGTA	QY 541 GTGCGCCAGTACGACCAGATCCTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTG	Db 269 ATGACTTTGACAGGAAGATGGAAACCAAAAATGATAGGGGGAATTGGAGGTTTTATCAAA	Qy 481 ATGAGCCTGCCCGGCAAGTGGAAGCCCCAAGATGATCGGCGCGATCGGCGGCTTCATCAAG	329	atcaaggaggccctgctggacaccg	Similarity 66.4%; Pred. No. 2.7e 1; Conservative 0; Mismatches	Score 136.4;
CGCGAGGACCTGGCCTTCCCCCA 248	Length 2886; Indels 27; Gaps 4;	genomic sequences "	Library"	ca cultivar-group) " Db	Qy	Db	Qy	101300, China Db	Db	on of the rice genome and Qy	D., Zhao,H., Yuan,L.,	I.d. I. Waster V	nbryophyta; Tracheophyta; Poales; Poaceae;		Db C	sativa (indica	linear GSS 21-SEP-2004 Qy	Db	Qy	Db	CAGTAAAATTAAAGCCAGGAATG 31 Qy	ccgrgaagcrgaagccggcarg 720 pb	ATCIGITGACICAGATTGG-TGC 91 Qy	660	150	600	GGGGAATTGGAGGTTTTATCAAA 210 Qy	540	270	480	; Indels 1; Gaps 1;	DB 10; Length 330;
1256 CARGATICGAGGAGCTIGGGGAAGGACCTIGGTIGGGGGGTTCACCACCCCGACAGGAA 1325	1206 CGTGATCTACCAGGCCCCCTGTACGTGGGCAGCGACCACGACCACCACCACCACCACCACCACCAC	79 CATCAAGGAGGTCCACTTCCTCCCGTTCAACCCCGTCGAGAAAGCGCACGGCCATCAC	46 CATCTTCCAGAGCAGCATGACCAAGATCCTGGAGCCCTTCCGCGCGCCCGCAACCCCCGAGAT	1119 GGACGCCATTGACACATGCATCGTGGGCATGCTCGCCGACCCCAAGGAGGCCCGCGCCGG 1178	1086 GACCCCCGGCATCCGCTACCAGTACAACGTGCTGCCCCAGGGCTGGGAAGGGCAGCCCCAG 1145	1059 GGGGTGGACAAGGACTCGGTGCTCCTGTACGCGGCGAGGGGGGTCCCGCGTCGAGAACCA 1118	1026 GCCCCTGGACGACGACTTCCGCAAGTACACCGCCTTCACCATCCCCAGCATCAACAACGA 1085	999 COGGACGCTGAACAAGACTCACCGTCGACAAGACGCTGATCGAGGTGTACGGGCG 1058			879 CGTGCTGTCACCATGGCCATCGGCTCCCACCGGCTGTCGCAGCAGGAGGCCCATCAC 938	846 CCCCGTGTTCGCCATCAAGAAGAAGGACAGCACCAAGTGGCGCAAGCTGGTGGACTTCCG 905	819 CGACGGCATCGACAACCTGCTCGTCCTGCTCATCGGCGGCATCGCCCATGGCCAC 878		726 CCCCARGETGRAGCAGTGECCCTGRACCARGRAGRAGATCARGECCTGRACCGCCATCTG 785		666 GAACTTCCCCATCAGCCCCATCGAGACCGTGCCCGTGAAGCCTGAAGCCCGGCATGGACGG 725	639 CATCGCCACCGGCGTGCACACCTTCTTCGGCAAGGGGGGCACCTGGTGGACAGCACCAA 698	606 CGGCCCCACCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGCACCCT 665	579 CGCCGGGCAGGCGTCTTCTCCGGGTCAACCGTCAAGCAGGCGAGATCGAGGCCGTCGT 638	546 CCAGTACGACCAGATCCTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTGCTGAT 605	519 CGACCCGCTCAAGGTCGACCAGGCGGCGCTCACCGGCGAGTCGATGCCCGTCAACAAGCA 578	486 CCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAGGTGCG 545	459 CGACATCAGCATCAAGCTCGGCGACATCATCCCCGCCGACGCGCGGCTGCTCGAGGG 518	426 CCAGATCAAGGAGGCCCTGCTGGACACCGGCGCCGACGACACCGTGCTGGAGGAGATGAG 485	399 GACCAAGGTGCTCAGGGAACGGGAAAATGGCAGGACGAGGACGCGTCCATCCTCGTTCCCGG 458	366 CCTGAACTTCCCCCAGATCACCCTGTGGCAGCGCCCCCTGGTGAGCATCAAGGTGGGCGG 425	339 CATCGAGGAGAACAATGCCGGGAACGCCGCCGCGCGCCTCATGGCCGGCC	309 GCTGCAGGTGCGCGGCGACAACCCCCCGCAGCGAGCGCCGGAGCGCCGAGCGCACGGCAC 365	279 CGACTGGCAGGACTTCGTCGGCATCGTCCTCCTCGTCATCACTCCACCATCAGTTT 338	249 GGGCAAGGCCCGCGAGTTCCCCCAGCGAGCAGAACCGCGCCAACAGCCCCACCAGCCGCGA 308	219 GGTCATGGAGGCCGCCATCATGGCCATCGTCCTCGCCAACGGCGGCGGCGGCAGGCCGCC 278

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2 hang, J., Feng, Q., Jin, C., Qiu, D., Zhang, L., Xie, K., Yuan, D., Han, B., Zhang, Q. and Wang, S.

Features of the expressed sequences revealed by a large-scale analysis of ESTs from a normalized cDNA library of the elite indica rice cultivar Minghui 63

Plant J. 42 (5), 772-780 (2005)
                                                                                                                                                                                                                                                                                                                                        Oryza sativa (indica cultivar-group)
Oryza sativa (indica cultivar-group)
Oryza sativa (indica cultivar-group)
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.
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                                                                              11: shipingwang@hotmail.
primer: T7.
                                                                                                              86-27-87282044
86-27-87287092
                                                                                                                                             nal Key Laboratory of Crop ong Agricultural University
/organism="Oryza
/mol_type="mRNA"
/strain="indica"
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                                cultivar-group) "
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                    GGGCGCACGGCGCGCGCCCTTCTCCCGGCAAGGACCCGACCAAGGTCGACCGGAGCGG
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/note="Vector: pSPORT1; Site_1: Sall; Site_2: NotI; The library is constructed based on the strategy of satuation hybridization with genomic DNA using rice cultivar Minghui 63. This library consists of cDNA from 15 directionally cloned cDNA libraries constructed with different tissues from 9 developmental stages."
                                                                                                                                                                                                                                                                                                                                     /cultivar="Minghui 63"
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/clone="EI057014, THREEB09,
BI070G16, BI08"
                                                                                                                                                                                                                                             /tissue_type="whole plant"
/dev_stage="whole-life-cycle"
/lab_host="E. coli DH10B"
                                                                                                                                                                                                           clone_lib="A normalized whole-life-cycle cDNA library
                                                                                                                                                                                                                                                                                                                                                                        BI057004,
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CGGCACCGTGCTGATCGGCCCCACCCCCGTGAACATCATCGGCCGCAACATGCTGACCCA CCACATGTTCGGCTACGCCACCGACGAGGCCCCCGAGCTGATGCCCCTCAGCCACGTCCT CTTCATCAAGGTGCGCCAGTACGACATCCTGATCGAGATCTGCGGCAAGAAGGCCAT GCAGGGGGTGCACGGCCACTTCACCAAGCGCCCCGAGGAGATCGGCGCCGGCGACCAGGG 613 650 590 493

433

530

CAGGCCCGACGCCAAGACCCAGGTCACCGTCGAGTACCTCAACGACGCCGGCGCCATGGT GCTGGGCTGCACCCTGAACTTCCCCCATCAGCCCCATCGAGACCGTGCCCGTGAAGCTGAA 770 710

GCCCGGCATGGACGGCCCCAAGGTGAAGCAGTGGCCCCTGACCGAGGAGAAGATCAAGGC CCCCGTCCGCGTCCACACCGTCCTCATCTTCACCCAGCACGACGAGACCGTCACCAACGA 733

CGAGATCGCCGCC-----GACCTCAAGGAGCACGTCATCAAGCCGGTCATCCCCCGACAA CCTGACCGCCATCTGCGAGGAGATGGAGAAGGAGGGCAAGATCACCAAGATCGGCCCCGA 787 830

GCTGGTGGACTTCCGCGAGCTGAACAAGCGCACCCAGGACTTCTGGGAGGTGCAGCTGGG ĠŦĀĊĊŦĊĠĀĊĠĀĠĀAGĀĊĊĀŤĊŤŤĊĊĀĊĊŤĊĀĀCCCCŦĊĠĠĠĊĊĠĊŦŦĊĠŦĊAŦĊĠĠĊĠĠ GAACCCCTACAACACCCCCGTGTTCGCCATCAAGAAGAAGGACAGCACCAAGTGGCGCAA 847 890

CATCCCCCACCCCGCCGGCCTGAAGAAGAAGAAGAGCGTGACCGTGCTGGACGTGGGCGA 1010 GCCCCACGGCGACGCCGGCCTCACCGGCCGCAAGATCATCATCGACACCTACGGCGGATG

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                                                                                                                                                                                                                          Direct Submission
Submitted (25 APR-2002) Maize Mapping Project, University of Missouri, Columbia, MO 65211, USA
If you are interested in getting corresponding physical clones, these are publicly available from ZmDB and may be found by BLAST searching at MSL, maizemap.org; ZmDB, www.zmdb.iastate.edu; TIGR, www.tigr.org; or NCBI, www.ncbi.nlm.nih.gov. When the source of the maize CDNA sequences is either Virginia Walbot, Stanford or Pat Schnable, Iowa State, then clones may be requested from ZmDB: www.zmdb.iastate.edu.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gardiner, J., Schroeder, S., Polacco, M.L., Sanchez-Villeda, H., Fang, Z., Morgante, M., Landewe, T., Fengler, K., Useche, F., Hanafey, M., Tingey, S., Chou, H., Wing, R., Soderlund, C. and Coe,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hainey, C.F., Dolan, M., Miao, G.H., Vogel, J.M., Whitsitt, M.S., Arthur, L.W., Hanafey, M., Morgante, M. and Tingey, S.V. Maize Mapping Project/DuPont Consensus Sequences for Design Overgo Probes
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/note="this sequence is part of a project of EST assemblies resulting from the application of publicontigs to seed DuPont contigs, this resource was assembled by DuPont as part of a collaboration fo
                                                                              Library"
                                                                                           /db_xref="taxon:4577"
/clone_lib="Maize Mar
                                                                                                                                /mol_type="mRNA"
/db_xref="MaizeGDB:638378"
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Oryza sativa (indica cultivar-group)
Oryza sativa (indica cultivar-group)
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.
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Jiao,Y., Sun,N., Zhang,X., Bao,J., Sun,D.,
Wong,G.K.S., Deng,X.W. and Wang,J.
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Department of Bioinformatic
Beijing Institute of Genomics
Chinese Academy of Sciences, I
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Pax: 86-10-80488676
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                                                             ATGAGCCTGCCCGGCAAGTGGAAGCCCCAAGATGATCGGCGCCATCGGCGGCTTCATCAAG
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/mol_type="genomic DNA"
/db_xref="taxon:39946"
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                                                                         Pax: 314 286 1800
Pax: 314 286 1800
Email: nematode@watson.wustl.edu
Genomic DNA provided by John Hawdon (mtmjmh@gwumc.edu) DNA
sequenced by Washington University Genome Sequencing Center
                                                                                                                                                          Contact: Mitreva M
Washington University in St. Louis
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. 1
Tel: 314 286 1800
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AIAA-aaf35a12.bl Ancylostoma caninum whole genome shotgun library
(AIAAGSS 001) Ancylostoma caninum genomic, genomic survey sequence.
CZ247380
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Class: sho
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Genome Survey sequences from the parasitic nematode Ancylostoma
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ockefeller.0.1211 Mastigamoeba balamuthi lambda ZAP II Library Mastigamoeba balamuthi cDNA similar to adenosylhomocysteinase (EC 3.3.1.1), mRNA sequence.
BM321451, GI:18055857
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/strain="Baltimore"
/db_xref="taxon:29170"
/dev_stage="Adult"
/lab_host="GS10"
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Pred. No. 3.2e-05;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bapteste, E., Brinkmann, Gordon, P., Durufle, L.,
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Mastigamoeba balamuthi
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The Rockefeller University
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 CAAGGTCGCCGTCGTCGCGGGCTACGGCGACGTGGGCAAGGGCTGCGCCGAGTCGCTGCG
                                     CTGGGTGCCCGCCACAGGGCATCGGCGGCAACGAGCAGATCGACAAGCTGGTGAGCAA
                                                                       CGGCTGCCGCCACTCGCTCATCGACGGCATCAAGCGCGGCACCGACGTGATGCTCGGCGG
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/mol_type="mRNA"
/strain="ATCC 30984"
/db_xref="taxon:108607"
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/note="syn: Phreatamoeba balamuthi"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unpublished (2004)
Contact: Chen Chen
Department of Bioinformatic
Beijing Institute of Genomics
Chinese Academy of Sciences, Be
Tel: 86-10-80488676
Fax: 86-10-80488676
876 CACCAAGTGGCGCAAGCTGGTGGACTTCCGCGAGCTGAACAAGCGCACCCAGGACTTCTG
                                                                                                                                                             756
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Jiao,Y., Sun,N., Zhang,X., Bao,J., Sun,D.,
Wong,G.K.S., Deng,X.W. and Wang,J.
An analysis of transcriptional regulation
its comparison to Arabidopsis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Oryza sativa (indica cultivar-group)
Oryza sativa (indica cultivar-group)
Oryza sativa (indica cultivar-group)
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.

1 (bases 1 to 2031)
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                                                                                                                           CAAGCGGCTCATCGGCCGGCAGTTCTCCCGACGCCGAGGTGCAGCGCGACATGAAGCTGCT
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                                                      GCCGTTCGCCGTCGTCGACCGGAACGGCAAGCCGCACGTGCGCGTCGAGGTGAAGGACGG
                                                                                      CANGATCGGCCCCGAGAACCCCTACAACACCCCCGTGTTCGCCCATCAAGAAGAAGGACAG
                                                                                                                                                             GGAGAAGATCAAGGCCCTGACCGCCATCTGCGAGGAGATGGAGAAGGAGGGCAAGATCAC
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/mol_type="genomic DNA"
/db_xref="taxon:39946"
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/note="Oryza sativa exon
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Pred. No. 4.4e-05;
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                                                                                                                       GCGGAGCATGACGAGGGACAACCGGCTGCTCGGCAGGTTCGACCTCGCCGGCATCGCGCC
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Jiao, Y., Sun, N., Zhang, X., Bao, J., Sun, D., Zh
Wong, G.K.S., Deng, X.W. and Wang, J.
An analysis of transcriptional regulation of
its comparison to Arabidopsis
Unpublished (2004)
Contact: Chen Chen
Department of Bioinformatic
Baijing Institute of Genomics
Chinese Academy of Sciences, Beijing 101300,
Tel: 86-10-80488676
Email: Chenchen@genomics.org.cn
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Oryza sativa (indica cultivar-group)
Oryza sativa (indica cultivar-group)
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.
1 (bases 1 to 1725)
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CL978463
                                                                                                                                                                                                             Rice genomic sequence. Class: exon-trapped.
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                                                                                                                                                                                            exon-trapped.
Location/Qualifiers
                                                                                                                     /organism="Oryza sativa
/mol_type="genomic DNA"
/db_xref="taxon:39946"
                                                                                       /clone_lib="Oryza sativa
/note="Oryza sativa exon
                  3.4%;
 Score 84; DB 10;
Pred. No. 7.8e-05;
0; Mismatches 600
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Contact: Tain Anderson
The Institute for Genomic Research (TIGR; www.tigr.org)
The Madical Center Drive, Rockville, MD 20850, USA
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Gene discovery in the Acanthamoeba castellanii
Unpublished (2004)
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Fax: 301-838-0208
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CCGCTTCCTGCCCGACAAGGCCATCGATCTGATTGACGAAGCCTGCGCCAACACCCCGCGT
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/mol_type="genomic DNA"
/strain="Neff"
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1177 GAGCCTTCCGCGCCCCGCAACCCCGAGATCGTGATCTACCAGGCCCCCTGTACGTGGGC 1236	D &	OY 97 TGCTTCAACTGCGCAAGGAGGGCCACATCGCCGCAACTGCCGCGCGCG
1117 CTGCCCCAGGGCTGGAAGGGCAGCCCCAGCATCTTCCAGAGCAGCATGACCAAGATCCTG 1176	음 성	37 ACCAGGGCCAACATCCTGATGGAGGGGGAGCAACTTCAAGGGCCCCAAGGGCATCATCAAG
1057 GCCTTCACCATCCCCAGCATCAACGAGACCCCCGGCATCCGCTACCAGTACAACGTG 1116	B 8	Query Match 3.3%; Score 80.8; DB 10; Length 3069; Best Local Similarity 41.6%; Pred. No. 0.0003; Matches 657; Conservative 0; Mismatches 912; Indels 9; Gaps 2;
997 CTGGACGTGGGCGACGCCTACTTCAGCGTGCCCCTGGACGAGGACTTCCGCAAGTACACC 1056	B &	/cu xrei="taxon:39946" /clone_lib="Oryza sativa Express Library" /note="Oryza sativa exon trapped genomic sequences " ORIGIN
	g 1	source 13069 "Oryza sativa (indica cultivar-group)" /mol_type="genomic_DNA"
1462 CTGAAGCCGTGCTTCCTCTACTTCGCCGGGTTCACCGCGCAGACGCCGATCTGCGCCGGG 1521	\$ B	RICE GENOMIC SEQUENCE. Class: exon-trapped. FEATURES Location/Qualifiers
877 ACCAAGTGGCGCAAGCTGGTGGACTTCCGCGAGCTGAACAAGCGCACCCAGGACTTCTGG 936	Ş	Fax: 66-10-80488676 Fax: 66-10-80488676 Email: chenchen@genomics.org.cn
817 AAGATCGGCCCCGAGAAACCCCCTACAACACCCCCGTGTTCGCCATCAAGAAGAAGGACAGC 876	유 성	Department of Bioinformatic Beijing Institute of Genomics Chinese Academy of Sciences, Beijing 101300, China
1342 GATGATAGCGAGACGGCGCCGACATCGACGGAGCAAACGAAGAAGAAGAAGAAGAAGGAAG	p 4	its comparison to Arabidopsis AL Unpublished (2004) Contact: Chen Chen
1282 CARCOCCOGACATCGCCGGAGACAGACGCCGCCGGAGGCGAAGAAGGAAG	₹ ₽	Jiao, Y., Sun, N., Zhang, X., Bao, J., Sun, D., Zhao, H., Yuan, L., Wong, G.K.S., Deng, X.W. and Wang, J. Sun, D., The rice Common and Property of the Commo
697 CCCGTGAAGCTCGAGCCATGGACGGCCCCAAGGTGAAGCAGTGGCCCCTTGACCGAG 756	ş	3069) ., Chen,C., Liu,X., Su,N., Li,L.,
637 AACATGCTGACCCAGCTGGGCTGCACCCTGAACTTCCCCATCAGCCCCATCGAGACCGTG 696	B &	ORGANISM Oryza sativa (indica cultivar-group) Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Ehrhartoideae: Oryzaae: Oryza
62 CTCGTGGACTCCATGACGAAGGGCTCCAACCTGCCGCTCAACATCGTCATGCTCGCCGGA	용 .	CL973991.1 (GSS. Oryza sativa
919 DEDDESDLIKGERENEDDDDDDARDEDDDDDREDELENEDDREDDENDDDREDDEDDREDERDERDKERED 2011 1911 DAMERKYTTONADERREDELENDREDDREDDDDREDDDDREDDREDDREDDREDDREDDR	§ §	cultivar-group) genomic, genomic survey sequence.
17 GGCGGCATCGGCGGCTTCATCAAGGTGCGCCAGTACGACCAGATCCTGATCGAGATCCTGC 	ş Ş	i (n
1042 GGCGTGCGCACCAGGGAGCTCGGGAAAGCTGCGGCCGAGCCGAGCCGAGCTGTTC 1101	B 4	STT-7
982 CTCGTCACGACGCCAGGTCAÁGATCAGCGAGGAGTCGGAGCAACCCGGTGGGCCGGCGGGGGC 1041 457 GCCGACGACACCCTTGGAGGAGATCAGCGAGGAGTCGGAAGCAACCCCGAAGGTGAAGATGATC	\$ B	OY 1098 COGCTACCAGTACAACGTGCTGCCCCAGGGCTGGAAGGGCAGCCCCAGCATC 1149 Db 115 CGATCTGCGCTACCCCGTGCCCCGAGCTCTCGAAAAGCGCATCCACACTC 64
397 CGCCCCTGGTGAGCATCAAGGTGGGCGGCCAGATCAAGGAGGCCCTGCTGGACACCGGC 456	ş	Db 175 CGAGGACCTCAAGGCCGACGCCGAGCGACGCAAGGACCTCGCCACCGCCGC 116
922 AGGAGGAGTGGGCCTTCTTCCTCGCCGCGCGCTCCCCCGGCGGCCTCGCCGGCGG	ర్జ	OY 1038 GGACTTCCGCAAGTACACCGCCTTCACCATCCCCAGCATCAACAACGAGACCCCCGGCAT 1097
337 дасадарскаророванска праводноство предоставания представания предс	ঠ	Db 235 GGCGCGCTACGAGGAGAGAGGGGCGCGCTCGACGAGGATCCGCACGCTCAAGAAGCGACT 176
62 CGCCTCGCCGCCGCCTCCAGGGGAAGAGGTACCTCGTGGTGGTGCTCGACGACGTCCGGAGC	дb	Оу 978 даадаадасстдасстдастдаасдтдааддасдастасттсадстдасстдаасда 1037
277 CAGAACCGCGCCAACAGCCCCACCAGCCGGGAGCTGCAGGTGCGCGGGGGGACAACCCCCGC 336	8 8	Db 295 GCGCATCGAGAAGATCAAGGAGGAGCTGTCGCGCATCAAGGAGGAGATCAAGCCCGCTCAA 236
1.7 AACTICTICCGCGAGGACCTGGCCTTCCCCCAGGGCAAGGCCCGGGAGTTCCCCCAGGGAG	ş 8	355 GGTÉGAGCTCACCGCÉATGGAGAÁGGAGTACÁAGGATTCGAÁGGACAAGGCCACCGÁGCÁ 918 GCGCACCTAGGACTTTCTGGAGAGTTTGAGCTTTTGGAGTTTTGAGATTTGAGAGTTAGAGGACAAGGACTAGAGGACTAGAGGACTAGAGAGAG
745 CACGACGTCATCCGCCAGGCCAACGCCTCCTCCGGCGACGACGACGCTCGGCGGCGAGGC- 803	дb	OY 858 CATCAAGAAGAAGGACAGCACCAAGTGGCGCAAGCTGGACTTCCGCGAGCTGAACAA 917
	ş	415 GCAGCTCGACCCGAGGTGATCGACCAGCTCGAGCGCCGCCGTCTCAGGCTCGA
685 CACTICGCCIGCACGGCGIGGGICCACGICCCCGCAAGIICCGCTICGCCGACCICCIC 744	ρb	Oy 798 GAAGGAGGGCAAGATCACCAAGATCGGCCCCGAGAACCCCCTACAACACCCCCGTGTTCGC 857

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TITLE
JOURNAL
COMMENT
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ORGANISM
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                                                                                                                                                                                                                                                                                                                                          University of Saskatchewan, Department of Cor
1C101 Engineering Building, 57 Campus Drive,
Saskatchewan, S7N SA9, Canada
Tel: 306 966 1769
Fax: 306 966 2033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Allard, F., Crosby, W.L., Danyluk, J., Eudes, F., Frick, M., Gaudet, Genswein, B., Graf, R., Gulick, P., Hrycan, L.D., Laroche, A., Links, M.G., McCarthy, B.L., Monroy, A., Muzak, I., Nilson, D., Penniket, C., Roach, J.L. and Sarhan, F. Functional Genomics of Abiotic Stress In Wheat and Canola Crops
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mRNA sequence.
CK159167
CK159167.1 GI:38985053
                                                                                                                                                                                                                                                        Email: fgas_ests@cs.usask.ca
This sequence is the direct result of the
Phred (default parameters). It is the raw
identification of the high quality insert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Poolideae; Triticeae; Triticum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unpublished (2003)
Contact: Wm L Crosby
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FGAS040564 Triticum aestivum FGAS:
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                                                                                                                                                                                          region [128,636].
te: TaLt537 row: N column:
/mol_type="mRNA"
/culTivar="When:41565"
/db_xref="taxon:4565"
/lab_host="DH5 alpha"
/clone_lib="Triticum aestivum FGAS: TaLt5"
/note="Organ: Crown; Vector: pGEM-T; SSH (suppression)
                                                                                                                                                                        Location/Qualifiers
                                                                                                                                organism="Triticum aestivum"
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Talt5 Triticum aestivum cDNA,
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                                                                                                                                                                                                                                                                                                                                                                                                            Computer Science
ve, Saskatoon,
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ACCESSION VERSION KEYWORDS

CZ216254.1

GI:59229909

SOURCE

Ancylostoma caninum (dog hookworm)

Ancylostoma caninum Bukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Strongylida; Ancylostomatoidea; Ancylostomatidae; Ancylostomatinae; Ancylostoma RESULT 13 CZ216254 LOCUS

DEFINITION

CZ216254 892 bp DNA AIAA-aaf23g02.bl Ancylostoma caninum whole (AIAAGSS 001) Ancylostoma caninum genomic, CZ216254

linear GSS 10-FEB-2005 genome shotgun library

genomic

survey sequence

8 8 8 8 8 8 8 8 8 8

167 AACGGCAACAACAACAAAC 149

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Matches
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1240 GACCTGGAGATCGGCCAGC 1258
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                                     AACAACAACAACAACAACGACGACGACGACGACGACGATAACAACGACAACAACGACAAC
                                                                       CCCTTCCGCGCCCCCCAACCCCGAGATCGTGATCTACCAGGCCCCCCTGTACGTGGGCAGC
                                                                                                              CCCCAGGGCTGGAAGGGCAGCCCCAGCATCTTCCAGAGCAGCATGACCAAGATCCTGGAG
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Genomic DNA provided by John Hawdon (mtmjmh@gwumc.edu) DNA
sequenced by Washington University Genome Sequencing Class: shotgun.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mitreva,M., McCarter,J.P., Pape,D., Ritter,E., Tsagareishvili,R., Ronko,I., Martin,J., Wylie,T., Dante,M., Meyer,R., Messina,D., Waterston,R.H., Clifton,S.W. and Wilson,R. Genome Survey sequences from the parasitic nematode Ancylostoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Washington University in St. Louis
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Tel: 314 286 1800
Fax: 314 286 1810
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATCCAGAAGCAGGGCCACGACCAGTGGACCTACCAGGATCTACCAGGAGCCCTTCAAGAA 1709
GGACAGCGGCAGCGAGGTGAACATCGTGACCGACAGCCAGTACGCCCTGGGCATCATCCA 2186
                                                                                                                                                              CGAGACCAAGATCGGCAAGGCCGGCTACGTGACCGACCGGGGCCGGCAGAAGATCGTGAG
                                                                                                                                                                                                                                               GCTGGAGAAGGAGCCCATCATCGGCGCCGAGACCTTCTACGTGGACGGCGCCCCAACCG
                                                                                                                                                                                                                                                                                                                               CAAGCACAACTACGTCCACCACCACTTCGACGACACCGACGACTACTAGCTCTAGCACGT 244
                                                                                                                                                                                                                                                                                                                                                                                                                GTTCCGCCTGCCCATCCAGAAGGAGACCTGGGAGACCTGGTGGACCGACTACTGGCAGGC 1889
                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTAGCACGTCAAGCACGTCAACCAGCACGTCAACCAGCACATCGACGTCGACGACAC 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GACCGAGGCCGTGCAGAAGATCGCCATGGAGAGCATCGTGATCTGGGGGCAAGACCCCCAA 1829
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                                      CGACACCGACGACTACTAGCTCGAGCACGTCAAGCAGCACGTCAACCAGCACGTCAACCA
                                                                               CCTGACCGAGACCACCAA----CCAGAAGACCGAGCTGCAGGCCATCCAGCTGGCCCTGCA 2126
                                                                                                                                                                                                         CCACGTCCACAACCACTTCGACGACACCGACGACTACTACCTCGAGTACCTCGACCAGCA 364
                                                                                                                                                                                                                                                                                        CAAGCAGCACGTCAACCAGCACGTCAACCAGCACCTCGACGTCGACGACACCCAAGCCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGACGACACCAAGCACCACATCCACAACCACTTCGACGACGACGACGACTACTAGCT
                                                                                                                       CGTCAACCAGCACCTCGACGTCGACGACACCAAGCACAACCACGTCCACAACCACTTCGA 424
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note="Vector: pOTW13; Site 1: BstX1; Site 2: BstX1; Ancylostoma caninum genomic DNA was randomly sheared, end-repaired and size fractioned to enrich for 2-4 kb fragments. Genomic DNA was provided by John Hawdon (mtmjmh@gwumc.edu) at George Washington University. Sequencing by Washington University Genome Sequencing Center, St. Louis, MO."
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/dev_stage="Adult"
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strain="Baltimore"
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Pred. No. 0.0003;
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Beijing Institute of Genomics
Chinese Academy of Sciences, 1
Tel: 86-10-80481559
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An analysis of transcriptional regulation of the rice gen the comparison to Arabidopsis Unpublished (2004)
Contact: Chen Chen
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Oryza sativa (indica cultivar-group)
Eukaryota, Viridiplantae, Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GSS.
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CL971508.1 GI:52397596
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1 (bases 1 to 1941)
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                                                                     GGTGGTGCCTGGCCCCGGCGACAAGCCGATGATCGTCGTCCAGTACAAGGGCGAGGAGAA 344
                                                                                                        CCTGTGGCAGCGCCCCTGGTGAGCATCAAGGTGGGCGGCCAGATCAAGGAGGCCCTGCT
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GCAGTTCGCCGCGGAGGAGATCTCGTCCATGGTGCTGATCAAGATGAGGGGAGATCGCGGA
                                GATTGGTAGGAGGTTCTCCGACCCGTCCGTGCAGAGTGACATGAAGCTATGGCCGTTCAA
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                                                                                                                                                                                                                                                                                                 Conservative
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/mol type="genomic DNA"
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                                                                                                                                                                                                          GCTGCCCGAGAAGGAGCTGGACCGTGAACGACATCCAGAAGCTGGTGGGCAAGCTGAA 1460
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                                      GCTGCGCGGCGAAGGCCCTGACCGACATCGTGCCCCTGACCGAGGAGGCCGAGCTGGA 1571
                                                                                 CAGGACCAAGGACAACCTCCTCGGCAAGTTCGAGCTCTCCGGCATCCCACCGGCGCC
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                                                                                                                                                                                                                                                                                                                                                                               Laboratory of Biochemical Parasitology
The Rockefeller University
1230 York Avenue, New York, NY 10021,
Email: mmuller@rockvax.rockefeller.edu
Insert Length: 1132 Std Error: 0.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The analysis of 100 genes supports the grouping of three highly divergent amoebae: Dictyostelium, Entamoeba, and Mastigamoeba Proc. Natl. Acad. Sci. U.S.A. 99 (3), 1414-1419 (2002)
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1 (bases 1 to 1132)

Bapteste, E., Brinkmann, H., Lee, J.A., Moore, D.V., Sensen, C.W., Gordon, P., Durufle, L., Gaasterland, T., Lopez, P., Muller, M. an
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Mastigamoeba balamuthi
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                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                   /strain="ATCC 30984"
/db_xref="taxon:108607"
/clone_lib="Mastigamoeba
/note="syn: Phreatamoeba
                                                                                                                                                                                                                                                                      /organism="Mastigamoeba
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  Score 80.2; DB 3;
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                                                                                                                                                                                                                                                                                                                                    GECGECCACETCGCCECETACATGAAGCTCCTCAAGGAGCAGGACGCCGCCGCCTTCGAC
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                                                                                 CCCGAGGGCGCAAGCCCAAGCACTGGGGCAAGCGCAGGCTGACGTACCACGAGCGCAAG
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75.2	75.4	75.4	75.4	75.4	75.7	76.2	76.2	76.2	76.5	77.5	77.5	78.0	78.0	78.0	78.5	79.2	79.9	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.2
4341	2305	2305	2305	4343	2577	2299	2299	2299	1965	4352	4352	4319	4319	4319	3009	3015	4353	9189	36066	9792	9790	9783	9782	9170	9167	9785
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AX306429 Sequence	AR373385 Sequence	CQ870572 Sequence	BD263702 Improved		AX457088 Sequence	AR373386 Sequence	CQ870573 Sequence				AF287352 Synthetic	AR373322 Sequence	CQ870498 Sequence	BD263639 Improved		AX455946 Sequence	AF287353 Synthetic	AX427921 Sequence	CS078956 Sequence	AX427932 Sequence			AX427935 Sequence			

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181 GGCCACCAGATGAAGGACTGCACCGAGCGCCAAGCTTCTTCCGCGAGGACCTGGCC 240	121 CACATCGCCCGCAACTGCCGCGCCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAG 180	121 CACATCGCCCGCAACTGCCGCGCGCCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAG 180	61 CGCAGCAACTTCAAGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGC 120	61 CGCAGCAACTTCAAGGGCCCCAAGCGCATCAAGTGCTTCAACTGCGGCAAGGAGGGC 120	1 GTCGACGCCACCATGGCCGAGGCCATGAGCCAGCGCCAACATCCTGATGCAG 60	1 GTCGACGCCACCATGGCCAGGCCATGAGCCAGGCCACCAGCAGCCAACATCCTGATGCAG 60	Query Match 100.0%; Score 2457; DB 6; Length 2457; Best Local Similarity 100.0%; Pred. No. 8.9e-203; Matches 2457; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	/Organizam = Prince to Compensor /mol_type="unassigned DNA" /db_xref="taxon:32630" /note="PR975YMMM"	_	fiers	polypeptides and uses thereof Patent: WO 0204493-A 32 17-JAN-2002; CHIRON CORPORATION (US) ; University of Stellenbosch (ZA)	Polynucleotides encoding antigenic hiv type c polypeptides,		other sequences; artificial sequences.	synthetic construct	synthetic construct	AX455916.1 GI:21714901	32 from Patent W00204493.	AVASSOIS 2457 hm DNA linear PAT 06-JUL-2002	

Sequence

2341 TICCIGGACGCATCGATGGCGGCATCGTGATCTACCAGTACATGGACGACCTGTACGTG 2400	B &	1261 CGCGCCAAGATCGAGGAGCTGCGCAAGCACCTGCTGCGCTGGGGCTTCACCACCCCCCGAC 1320
GECATICGECGECAACGAGCAGATICGACAAGCTIGGTGAGCAAGGGCATICCGCAAGGTGCTGGCGGCAAGGTGCTGGCGAGCAAGGTGCTGGCGAGCAAGGTGCTGGCGAGCAAGGTGCTGGCAAGGTGCTGGCGAGCAAGGTGCTGGCGAGCAAGGTGCTGGCGAGCAAGGTGCTGGCGAGCAAGGTGCTGGCGAGCAAGGTGCTGGCGAGCAAGGTGCTGGCGAGCAAGGTGCTGGCGAGCAAGGTGCTGGCGAGCAAGGTGCTGGCGAGCAAGGTGCTGGCGAGCAAGGTGCTGGCGAGCAAGGTGCTGGCGAGCAAGGTGCTGGCGAGCAAGGTGCTGGCGAGCAAGGTGCTGGCGAGGAGGAGGAGGAGGAGGAGGGAG) B &	1201 GAGATCGTGATCTACCAGGCCCCCTGTACGTGGGCAGCGACCTGGAGATCGGCCAGCAC 1260
ATCATCGAGCAGCTGATCAAGAAGGAGAGGTGTACCTGAGCTGGGTGCCGCCCACAAG	}	1141 CCCAGCATCTTCCAGAGCAGCATGACCAAGATCCTGGAGCCCTTCCGCGCCCCCCCC
TACGCCCTGGGCATCATCCAGGCCCAGCCGACAGAGCGAGAGCGAGC	φ δ	1081 AACGAGACCCCCGGCATCCGCTACCAGTACAACGTGCTGCCCCAGGGCTGGAAGGGCAGC 1140
GCCATCCAGCTGGCCCTGCAGGACAGCGGCAGCGAGGTGAACATCGTGACCGACAGCCAG	Qy Db	1021 AGCGTGCCCCTGGACGAGGACTTCCGCCAGGTACACCGCCTTCACCATCCCCAGCATCAAC 1080
2041 CGGGCCGGCAGAAGATCGTGAGCCTGACCAGACCACCAGCCAG	QY dd	961 CCCGCCGGCCTGAAGAAGAAGAGAGCGTGACCGTGCTGGACGTGGGCGACGCCTACTTC 1020
TRICTIGARCISCOCCCARCISCOGAGACCAAGATCGGCAAGGCCGGCTACGTGARCGACCACTILIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	g &	901 TTCCGCGAGCTGAACAAGCGCACCCCAGGACTTCTGGGAGGTGCAGCTGGGCATCCCCCAC 960
CCCTGGTGAAGCTGTGGTACCACTGAGAAGGAGCCCATCATCGGCGCGAGACCTTC	ob Q	841 AACACCCCGTGTTCGCCATCAAGAAGAAGGACAGCACCAAGTGGCGCAAGCTGGTGGAC 900
Tegragaccaactracragaccaccaccregariccccgagriggagriccgraacaccccc	da da	781 ATCTGCGAGGAGATGGAGGAGGAGGGCCAAGATCACCAAGATCGGCCCCGAGAACCCCCTAC 840
GTGATCYGGGCAAGACCCCCAAGTTCCGCCTGCCCATCCAGAAGGAGACCTGGGAGACCCCATCAGAAGGAGACCCCGAGAGGAGACCCGAGAGGAGACCCGAGAGGAG	ρ δ	721 GACGGCCCCAAGGTGAAGCAGTGGCCCCTGACCGAGGAGAAGATCAAGGCCCTGACCGCC 780
	Qy db	661 ACCCTGAACTTCCCCATCAGCCCCATCGAGACCGTGCCCGTGAAGCTGAAGCCCGGCATG 720
ATCTACCAGGAGCCCTTCAAGAACCTGAAGACCGGCAAGTACGCCAAGATGCGCACCGCC	dg VQ	601 CTGATCGGCCCACCCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGC 660
CCAGCAGGACCTGTTGGCCGAGATCCAGAAGCAGGGCCAGGACCAGTGGACCTACCAG	₽ <i>Q</i>	541 GTGCGCCAGTACGAGATCCTGATCGAGATCTTGCGGCAAGAAGGCCATCGGCACCGTG 600
CTGGAGCTGGCCGAGAACCGCGAGATCCTGCGCGAGCCCGTGCACGGCGTGTACTACCAC	Qγ	481 ATGAGCCTGCCCGGCAAGTGGAAGCCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAG 540
	Db OY	421 GGCGGCCAGATCAAGGAGGCCCTGCTGGACACCGGCGCCGACGACACCGTGCTGGAGGAG 480
	p 8	361 GGCACCCTGAACTTCCCCCAGATCACCCTGTGGCAGCGCCCCCTGGTGAGCATCAAGGTG 420
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421 GGCGGCCAGATCAAGGAGGCCCTGCTGGACACCGGCGGCGACACCCGTGCTGGAGGAG 480 421 GGCGGCCAGATCAAGGAGGCCCTGCTGGACACCGGCGGCGACACCCGTGCTGGAGGAG 480 421 GGCGGCCAGATCAAGGAGGCCCTGCTGGACAACCCGGCGCCGACGACACCCGTGCTGGAGGAG 480 421 GGCGGCCAGATCAAGGAGGCCCAGATCAACCGGCGCGACGACACCCGTGCTGGAGGAG 480 481 ATGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAG 540 481 ATGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAG 540 541 GTGCGCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGAACAAGGACCGTG 600 541 GTGCGCCAGTACGACCAGATCCTGATCGAAGATCTGCGCAAGAAGGCCATCGGCACCGTG 600 541 GTGCGCCAGTACGACCAGATCCTGATCGAAGATCTGCGCAAGAAGGCCATCGGCACCGTG 600	01 AGCCGCGAGCTGCAGGTGCGCGGCGAGCAGCCCCGCAGGCGCCAGGCGCCAGGCGCCAGGCGCCAGGCGCCAGGCGCCAGGCGCCAGGCGCCCAGGTGCAGCGTGGCAGCGCCCCTGGTGAGCATCAAGGTG	TTCCCCCAGGGCAAGGCCCGCGAGTTCCCCAGCGAGCAGAACCGCGCCAACAGCCCCACC	121 CACATCGCCCGCAACTGCCGCCCCCCCCCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAG 180 181 GGCCACCAGATGAAGGACTGCACCGAGCGCCAAGGCCAACTTCTTCCGCGAGGACCTGGCC 240		1 GTCGACGCCACCATGGCCGAGGCCATGAGCCAGGCCACCAGCGCCAACATCCTGATGCAG 60 61 CGCAGCAACTTCAAGGGCCCCAAGCGCTCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGC 120 61	GTCGACGCCACCATGGCCGAGGCCATGAGGCCAGGCCAG	99.2%; Score 2436.2; DB 6; Length 2463; imilarity 99.6%; Pred. No. 5.5e-201;	/organism="Byninetic Construct" /mol_type="unassigned DNA" /db_xref="taxon:32630" /note="pR975YM"	CHIRON CORPORATION (US); Universit Location/Qualifiers 12463	ur Megede, J., Barnett, S.W., Engel olymucleotides encoding antigenic olypeptides and uses thereof	synthetic construct M synthetic construct other sequences; artificial sequences.	Sequence 31 from Patent W00204493. AX455915 AX455915.1 GI:21714900	2463 hp DND 111004 DDM	2401 GGCAGCGGCCCTAGGATCGATTAAAAGCTTCCCGGGGCTAGCACCGGTGAATTC 2457 2401 GGCAGCGGCCCTAGGATCGATTAAAAGCTTCCCGGGGCTAGCACCGGTGAATTC 2457
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GACCTGTACGTGGGCAGCGGCGCCCTAGGATCGATTAAAAGCTTCCCGGGGCTAGCACC
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Oy 290 ACACCCCACACCCGCAGCTCCAGCTCCAGCTCCCCCCCCC	83.0%; Score 2040; DB 6; Length 2300; Similarity 93.6%; Pred. No. 6.3e-167; GCGGCAAGGAGGCCAACCTCCTCCCAAGGAAGGCCCAAGGCCAACCTCCTCCGCGGCCAAGGCCGAAGGACAGGCCAAGGACAGGCCAAGGCCAAGGCCAAGGCCAAGGCCAAGGACAGGCCAAGGCCAAGGCCAAGGCCAAGGCCAAGGCCAAGGCCAAGGCCAAGGCCAAGGCCAAGGCCCAGGCCAAGGCCCAAGGCCCAGGCCAAGGCCCAGGCCAAGGCCCAGGCCAAGGCCCGCGAGTTCACCAGCAGGCAG	ORS ORS E E ES ES	RESULT 5 CQ870575 CQ870575 CQ870575 CQ870575 DEFINITION Sequence 83 from Patent EP1433851. ACCESSION CQ870575 VERSION CQ870575 VERSION CQ870575.1 GI:52000091 KEYMORDS SOURCE synthetic construct ORGANISM synthetic construct		Qy 2258 TGAGCTGGGTGCCCGCCACAAGGGCATCGGCGGCAACGAGATCGACAAGCTGGTGA 2317 Db
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Sequence 83
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Barnett, S.W., Megede, J., Greer, C. and Selby, M.
Expression of HIV polypeptides and production
particles
Patent: US 6602705-A 83 05-AUG-2003;
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                                                                           CCAACCAGAAGACCGAGCTGCAGGCCATCCAGCTGGCCCTGCAGGACAGCGGCAGCGAGG
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RS Barnett, S., Megede, J.Z., Srivastava, I., Lian, Y., Hartog, K., Liu, H.,

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RS Barnett, S., Megede, J.Z., Srivastava, I., Lian, Y., Hartog, K., Liu, H.,

RS Barnett, S., Megede, J.Z., Srivastava, I., Lian, Y.,

Improved expression of HIV polypeptides and production of

virus-like particles

virus-like particles

virus-like particles

virus-like particles

partificial Sequence

py 1002533124-A 71 08-OCT-2002;

PD 08-OCT-2002

PD 08-OCT-2009

PD 08-OCT-2002;

CILAN, PI

KARIN HARTOG,

PI HOMG LUU, CAPHERINE GREER, MARK SELBY, CHRISTOPHER WALKER PC

C12N15/09, A61K31/711, A61K38/00, A61K48/00, A61K37/02, PC

C12N15/09, A61K31/711, A61K38/00, A61K37/00, A61K37/00
230 AGGACCTGGCCTTCCCCCAGGGCAAGGCCCGCGAGTTCCCCCAGCGAGCAGAACCGCCGCCA
                                                                                                                                             170 GCGGCAAGGAGGGCCACCAGATGAAGGACTGCACCGAGCGCCAGGGCCAACTTCTTCCGCG
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TTCCCGGGGCTAGCACCGGTGAATTC 2457	2 1	1141 GCTGGGGCTTCACCACCCCGACAAGAAGCACCAGAAGGAGCCCCCCTTCCTGTGGATGG 1200	문
2372 TCTACCAGTACATGGACGACCTGTACGTGGGCAGCGGCGGCCCTAGGATCGATTAAAAGC 2431	₹ <i>8</i>	GCTGGGGCTTCACCACCCCCGGACAAGAAGCACCAGAAGGAGCCCCCCTTCCTGCCCAT	Ş
2312 TGGTGAGCAAAGGCATCGCAAAGGTGCTGTTCCTGAACGGCATCGATGGCGGCATCGTGA 2371 [B &	1238 GCGACCTGGAGATCGGCCAGCACCGCGCCAAGATCGAGGAGCTGCGCAAGCACCTGCTGC 1297	음 성
) D 4	1178 AGCCCTTCCGCGCCCCCCGAGATCCTGATCTACCAGGCCCCCTGTACGTGGGCA 1237	B 8
	S B 7	1118 TGCCCCAGGGCTGGAAGGGCAGCCCCAGCATCTTCCAGAGCAGCATGACCAAGATCCTGG 1177	₽ 3
1981 TGGAGGCGAGACGGACAGCCAGATCGTGAGCAGCTGATCAAGAAGGAAG	S B 8	1058 CCTTCACCATCCCCAGCATCAACAACGAGACCCCCGGCATCCGGCTACCAGTACCAGTGC 1117	B 성
	? B 4	998 TGGACGTGGGCGACGCCTACTTCAGCGTGCCCCTGGACGAGGACTTCCGCAAGTACACCG 1057	B 8
	? B 4	938 AGGTGCAGCTGGGCATCCCCCACCCCGCCGGCCTGAAGAAGAAGAAGAAGAAGACGTGACCGTGC 997	B 8
) D 4	878 CCAAGIGGCGCAAGCIGGIGGACIITCCGCGAGCIGAACAAGCGCACCCAGGACIITCIGGG 937	음 성
1952 AGGAGGCGATGATGGGGGGGAGACCTTTCTTAGGTGGAGGGGGGGG	S B &	818 AGATCGGCCCCGAGAACCCCTACAACACCCCCCGTGTTTCGCCATCAAGAAGAAGAAGAACAGCA 877 	B 8
	? B 4	758 AGAAGATCAAGGCCCTGACCGCCATCTGCGAGGAGGAGGAAGGA	B 8
1832 TECCCOATACA ACCADA ACCADA ACCADA CONTRAGA C	S B &	698 CCGTGAAGCTGAAGCCCGGCATGGACGGCCCCAAGGTGAAGCAGTGGCCCCTGACCGAGG 757	B &
712 COGGEARGITACGECCARGATICGECACCECCACACCACGEAGAGCAGAGCAGCTGACCACGAGGAGCAGCTGACCAGGAGCAGCTGACCAGGAGCAGCTGACCAACGACGACGACGAGGAGCAGCTGACCGAGGGAGCAGCTGAACCGACGCAAGGAAGCAGCTGAACCGACGCAGGAGGAGGAGCAGCTGACCGAGGAGGAGGAGGAGGAGCAGCTGACCGAGGGAGG	§ § §	638 ACATGCTGACCCAGCTGGGCTGCACCTGAACCTTCCCCCATCAGCCCCCATCGAGACCGTGC 697	유 성
1652 AGCAGGGCCAGTGGACCTACCAGATCTACCAGGAGCCCTTCAAGAACCTGAAGA 1711	λ ^Δ α .	578 GCAAGAAGGCCATCGGCACCGTGCTGATCGGCCCCACCCCCGTGAACATCATCGGCCGCA 637	유 성
1592 GCGAGCCCGTGCACGGGGTGACTACGACCCCGGGAGGACCTGGTGGCCGAGATCCAGA 1651	₽ Ş	518 GCGGCATCGGCGGCTTCATCAAGGTGCGCCAGTACGACCAGATCCTGATGAGATCTGCG 577	유 성
532 ACAPCGTGCCCTGACCGAGGAGGCCGAGCTGGAGCTGGCCGAGAAACCGCGAGATCCTGC	Db QY	458 CCGACGACACCGTGCTGGAGGAGATGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCG 517	음 성
1472 ACCCCGGCATCAAGGTGCGCCAACTGTGCAAGCTGCTGCGCGGCGCCAAGGCCCTGACCG 1531	Qγ	398 GCCCCCTGGTGAGCATCAAGGTGGGCGGCCAGATCAAGGAGGCCCTGCTGGACACCGGGG 457	유 성
1412 GCTGGACCGTGAACGACATCCAGAAGCTGGTGGGCAAGCTGAACTGGGCCAGCCA	Oy Ob	344 CCGGCGCGAGCGCCAGGGCACCCTGAACTTCCCCCAGATCACCCTGTGGCAGC 397	음 성
356CGAGCTGCACCCCGACAAGTGGACCGTGCAGCCCCATCGAGCTGCCCGAGAAGGAAG	P Q	290 ACAGCCCCACCAGCCGAGCTGCAGGTGCGCGGCGACAACCCCCGGCAGCGAGG 343 	B 8

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Improved expression of HIV polypeptides and production of virus-like particles
Patent: EP 1433851-A 82 30-JUN-2004;
CHIRON CORPORATION (US)
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                                                                                               GCAAGAAGGCCATCGGCACCGTGCTGATCGGCCCCACCCCCGTGAACATCATCGGCCGCA
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CCGTGAAGCTGAAGCCGGGGATGGACGGCCCCAAGGTCAAGCAGTGGCCCCCTGACCGAGG
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/note="Description of Artificial
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29 170 GCGGCAAGGAGGGCCACCAGATGAAGGACTGCACCGAGGGCCAGGCCAACTTCCTTC	Query Match 82.2%; Score 2019.2; DB 6; Length 2306; Best Local Similarity 93.2%; Pred. No. 3.9e-165; Matches 2150; Conservative 0; Mismatches 138; Indels 18; Gaps 2	rce	2705-A 82 05-AUG-2003 tion; Emeryville, CA ion/Oualifiers		3	AR373387 AR373387 DEFINITION Sequence 82 from patent US 6602705. ACCESSION AR373387	2281	2432 TTCCCGGGGCTAGCACCGGTGAATTC 2457	QY 2372 TCTACCAGTACATGGACCACCTGTACGTGGGCAGCGGCGGCGGCCCTAGGATGGAT	QY 2312 TGGTGAGCAAGGGCATCCGCAAGGTGCTGTTCCTGGACGGCATCGATGGCGGCATCGTGA 2371	2101 TGTACCTGGCCTGGGTGCCCGCCACAAGGGCATCGGCGGCAAGGAGGTGGACAAGC	Db 2041 ACAAGAGCGAGCTGGTGAGCCAGATCATCGAGCAGCTGATCAAGAAGGAGAAGG 2100 QY 2252 TGTACCTGAGCTGGGTGCCCGCCCACAAGGGCATCGGCCGAGCAGCAGATCGACCAGACCAGACAAGC 2311	TYSE INSANGEISMAKKAILGISMAKKANGKANGIAKGEKKIIGASKAIKAIKKAIKKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKKIKASKASKASKASKASKASKASKASKASKKIKASKKIKASKKIKASKASKKIKASKKIKASKKIKASKASKASKASKASKASKASKASKASKASKASKASKASK	2132 GCGAGGTGAACATCGTGACCGACCAGTACGCCCTGGGCATCATCCAGGCCCAGCCCG	Db 1921 ACACCAACCAGAACACGGACCGAGCCGAGCCATCCAGCCTGGCCCTGCAGGACAGCGGCC 1980	1861 AGCTGGGCAAGGCCGGCTACGTGACCGACCGGGCCAGAAGGTTGGTGAGCATCGCCG		1952	1741 TCCCCGAGTGGGAGTTCGTGAAACACCCCCCCCTGGTGAAGCTGTGGTACCAGCTGGAGA	OY 1892 TCCCCGAGTGGGAGTTCGTGAACACCCCCCCCCCTGGTGAAGCTGTGGTACCAGCTGGAGA 195	Db 1681 TGCCCATCCAGAAGGAGACCTGGGAGGCCTGGTGGATGGA
Db 1081 GCGACCTGGAGATCGGCCAGCACCAAGATCGAGGAGCTGCGCAGCACCTGCTGC 1140	1178 AGCCCTTCCGCGCCCCCAACCCCGAAATCCTGCTCAACCACGCCCCCTGTACGTGGGCA	18 TGCCCCAGGGCTGGAAGGGCAGCCCCAGCATCTTCCAGAGCAGCATGACCAAGATCCTGG	OY 1058 CCTTCACCATCCCCAGCATCAACAACGAGACCCCGGCATCCGCTACCAGTACAACGTGC 1117	Oy 998 TGGACGTGGGCGACGTCTTCAGCGTGCCCCTGGACGAGGACTTCCGCAAGTACACCG 1057	Qy 938 AGGTGCAGCTGGGCATCCCCACCCGGCCTGAAGAAGAAGAAGAAGACGTGACCGTGC 997	Qy 878 CCAAGTGGCGCAAGCTGGTGGACTTCCGCGAGCTGAACAAGCGCACCCAGGACTTCTGGG 937	Qy 818 AGATCGGCCCCGAGAACCCCCCTACAACACCCCCGTGTTCGCCATCAAGAAGAAGAACACCA 877	Db .	0b 5	0b 4 Qy 6	Q 6	OY 578 GCAAGAAGGCCATCGGCACCGTGATCGGCCCCACCCCGTGAACATCATCGGCCGCA 637	Db 361 GCGGGATCGGGGGGCTTCATCAAGGTGCGGCAGTACGACCAGATCCCCGTGGAGATCTGCG 420	Db 301 CCGACGACGACGACGACGAGGAGATGAACCTGCCCGGCAAGTGGAAGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCGCCCAAGATGATCCCCAAGATCAAGATGATCCCAAGATGATCAAGATAAGATCAAGATAAGATCAAGATAAGATCAAGATAAGATCAAGATAAGATAAGATAAGATAAGATAAGATAAGATAAGATAAGATAAGATAAGATAAGATAAGATAAGATAAGATAAGATAAGATAAGATAAGATAAGATAAGATAAGATAAGATAAGATAAGATAAAGATAAAGATAAAGATAAAGATAAAGATAAAGATAAAGATAAAGATAAAGATAAAAAA	Qy 4	Oy 398 GCCCCTGGTGAGCATCAAGGTGGGCGGCAGATCAAGGAGGCCCTGCTGGACACCCGGCG	Db 181 CCGGCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	ος 29 3.	QY 290 ACAGCCCCAGCGAGCGGGGGGGGGGGGGGGGGGGGGGG	1 Db 61	дь Qy 2:

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Db	161 TGGTGAGCGCCGGCATCCGCAAGGTGCTGTTCCTGAACGGCATCGATGGCGGCATCGTGA
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뫄	2101 TGTACCTGGCTGGGTGCCCGCCCACAAGGGCATCGGCGGCAAGCGAGGTGGACAAGC 2160
\$	2252 TGTACCTGAGCTGGGTGCCCGCCCACAAGGGCATCGGCGGCAACGAGCAGATCGACAAGC 2311
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S S	2192 ACAAGAGCGAGAGCGAGCTGGTGAACCAAGATCATCGAGCAGCTGATCAAGAAGGAGAAGG 2251
Db	1981 TGGAGGTGAACATCGTGACCGACAGCCAGTACGCCCTGGGCATCCAGCCCAGCCCGCCC
ঠ	2132 GCGAGGTGAACATCGTGACCGACAGCCAGTACGCCCTGGGCATCATCCAGGCCCAGCCCG 2191
뮹	921 ACACCAACCAGAAGACGGAGCTGCAGGCCATCCACCTGGCCCTGCAGGACAGCGGCC 1
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рb	1681 TGCCCATCCAGAAGGAGACCTGGGAGGGCCTGGTGGATGGA
S	1832 TGCCCATCCAGAAGGAGACCTGGGAGACCTGGTGGACCGACTACTGGCAGGCCACCTGGA 1891
3 110	1772 CCGTGCAGAAGATCGCCATGGAGAGCATCGTGATCTGGGGCAAGACCCCCAAGTTCCGCC 1831
ORI	1712 CCGGCAAGTACGCCAAGATGCGCACCCCACCCACGACGACGTGAAGCAGCTGACCGAGG 1771
FEA	1652 AGCAGGGCCACGACCAGTGGACCTACCAGATCTACCAGGAGCCCTTCAAGAACCTGAAGA 1711
4	1441 AGGAGCCCGTGCACGAGGTGTACTACGACCCCAGCAAGGACCTGGTGGCCGAGATCCAGA 1500
ΗÞ	1592 GCGAGCCCGTGCACGGCGTGTACTACGACCCCCAGCAAGGACCTGGTGGCCGAGATCCAGA 1651
REF	1532 ACATCGTGCCCCTGACCGAGGAGGCCGAGCTGGAGCTGGCCGAGAACCGCGAGATCCTGC 1591
ACC VER KEY	1472 ACCCCGGCATCAAGGTGCGCCAGCTGTGCAAGCTGCTGCGGGGGCCCAAGGCCCTGACCG 1531
RES AX4 LOC	1412 GCTGGACCGTGAACGACATCCAGAAGCTGGTGGGCAAGCTGAACTGGGCCAGGCCAGATCT 1471
Db &	1356CGAGCTGCACCCCGACAAGTGGACCGTGCAGCCCATCGAGCTGCCCGAGAAGGAGA 1411
S B	1298 GCTGGGCTTCACCACCCCCGACAAGAAGCACCAGAAGAAGCCCCCCTTCCTGCCCAT 1355
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Patent: WO 0232943-A 168 25-APR-2002;
COVERNMENT OF THE UNITED STATES (US)
Location/Qualifiers
1. 9166
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Sequence 168 from Patent WO0232943.
AX427930
AX427930.1 GI:21538017
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                                                                                                                                        TATCCTTTAGCTTCCCTCAGATCACTCTTTGGCAGCGACCCCTCGTCACAATAAAGATAG
                                                                                                                                                                ----CCCTGAACTTCCCCCAGATCACCCTGTGGCAGCGCCCCCTGGTGAGCATCAAGGTGG
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TGAACCTGCCCGGCCGCAAGACCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAGG
                                                                                          GCGGCCAGATCAAGGAGGCCCTGCTGGAGACACCGGCGCCGACGACACCGTGCTGGAGGAGA
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                                                                    GGGGCCAGCTGAAGGAGGCCCTTCTAGACACCGGCGCGACGACACCGTGCTGGAGGAGA
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ilarity 91.3%;
Conservative
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/mol_type="unassigned DNA"
/mol_type="unassigned DNA"
/db xref="taxon:23630"
/note="plasmid pVR1012x/s containing HIV genes"
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Pred. No. 9.2e-164;
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CHIRON CORP COMMENT OS Artificial Sequence PN JP 2002533124-A/73 PD 08-OCT-2002	1530 AUSTRONG LIGHAGE LIGHAGE CONTROL
Barnett, S., Megede, J.Z., Sr Greer, C., Selby M. and Walk Improved expression of HIV virus-like particles	GCCAGCTGTGCAAGCTGCTGCGCGGCGCCCAAGGCCCTGACCGACATCGTGCCCCTGACCG
SOURCE Synthetic construct ORGANISM synthetic construct ORGANISM synthetic construct Other sequences; artificial sequences. REFERENCE 1 (bases 1 to 2312)	1430 TCCAGAAGCTGGTGGGCAAGCTGAACTGGGCCAGCCAGATCTACCCCGGCATCAAGGTGC 1489
DEFINITION INDICATE THE PROPERTY OF THE PROPER	1370 ACAAGTGGACCGTGCAGCCCATCGAGCTGCCCGAGAAGGAGAGGCTGGACCGTGAACGACA 1429
BD263706 231	1316 CCGACAAGAAGCACCAGAAGGAGCCCCCCTTCCTGCCCATCGAGCTGCACCCCC 1369
QY 2330 GCANGGIGCTGTTCCTGGACGGCATTGGCGGCATTGTTATCTACCAGTA 2381	1256 AGCACCGCGCCAAGATCGAGGAGCTGCGCAAGCACCTGCTGCGCTTGGGGCTTTGACCACCC 1315
5240 5240	1202 AGATCGTGATCTACCAGGCCCCCCTGTACGTGGGCAGCGACCTGGAGATCGGCC 1255
5180	1142 CCAGCATCTTCCAGAGCAGGATGACCAAGATCCTGGAGCCCTTCCGCGCCCGCAACCCCG 1201
5120	1082 ACGAGACCCCCGGCATCCGCTACCAGTACAACGTGCTGCCCCAGGGCTGGAAGGGCAGCC 1141
50 60	1022 GCGTGCCCCTGGACGAGGACTTCCGGCAAGTACACCGCCTTCACCATCCCCAGCATCAACA 1081
5000 AC	962 CCGCCGGCCTGAAGAAGAAGAAGACGTGACCGTGCTGGACGTGGGCGACGCCTACTTCA 1021
1970 CC 4940 CC	902 TCCGCGAGCTGAACAAGCGCACCCAGGACTTCTGGGAGGTGCAGCTGGGCATCCCCCCACC 961
1910 TG 	842 ACACCCCCGTGTTCGCCATCAAGAAGAAGGACAGCACCAAGTGGCGCAAGCTGGTGGACT 901
1850 4820	782 TCTGCGAGGAGATGGAGAAGGGGGCAAGATCACCAAGATCGGCCCCGAGAACCCCCTACA 841
1790 TG	722 ACGGCCCAAGGTGAAGCAGTGGCCCCTGACCGAGGAGAAGATCAAGGCCCTGACCGACGAGGAGAAGATCAAGGCCCTGACCGACGAGGAGAAGATCAAGGCCCTGGTGGAGA 3739
1730 4700	662 CCCTGAACTTCCCCATCAGCCCCATCGAGACCGTGCCCGTGAAGCCTGAAGCCCGGCATGG 721
4640	602 TGATCGGCCCCACCCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGCA 661
4580 TO	542 TGCGCAGTACGACCAGATCCTGATCGAGATCTTGCGGCAAGAAGGCCATCGGCACCGTGC 601

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Best Local Similarity
Matches 2147; Conserv
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PR 31-DEC-1998 US 60/118495,01-DEC-1999 US 60/168471 PI
SUSAN BARNETT, JAN ZUR MEGEDE, INDRESH SRIVASTAVA, YING LIAN, PI
KARIN HARTOG,
PI HONG LIU, CATHERINE GREER, MARK SELBY, CHRISTOPHER WALKER PC
C12N15/09, A61X31/711, A61X38/00, A61X48/00, A61P31/18, A61P37/02, E
C12N7/00, C12P21/02, C12N15/00, C12N5/00, A61X37/02 CC
Description of Artificial Sequence: FS(-).protmod.RTopt(+) FH
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CCAAGTGGCGCAAGCTGGTGGACTTCCGCGAGCTGAACAAGCGCACCCAGGACTTCTGGG
                                                                                                                                                                                                                                                             GCAAGAAGGCCATCGGCACCCTGCTGATCGGCCCCACCCCCGTGAACATCATCGGCCGCA
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                                                                                                                                                          CCGTGAAGCTGAAGCCCCGGCATGGACCGCCCCAAGGTGAAGCAGTGGCCCCTGACCGAGG
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                                                                                        AGAAGATCAAGGCCCTGGTGGAGATCTGCACCGAGATGGAGAAGGAGGGCAAGATCAGCA
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/mol_type="genomic DNA"
/db_xref="taxon:32630"
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92.9%; Pred. No. 2.4e-163;
tive 0; Mismatches 141;
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                                                                                                                                                     CCGAGGCCGTGCAGAAGATCGCCATGGAGAGCATCGTGATCTGGGGCAAGACCCCCAAGT
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                TGGAGAAGGAGCCCATCATCGGCGCCGAGACCTTCTACGTGGACGGCGCCGCCAACCGCG
                                                    CCTGGATCCCCGAGTGGGAGTTCGTGAACACCCCCCCCCTGGTGAAGCTGTGGTACCAGC
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Query Match B1.3%; Score 1998.4; DB 6; Length 2312; Best Local Similarity 92.9%; Pred. No. 2.4e-163; Matches 2147; Conservative 0; Mismatches 141; Indels 24; Gaps 4; Oy 170 GCGGCAAGGAGGGCCACCAGATGAAGGACTGCACCGAGGCCAACTTCCTTC		Oy 2006 AGACCAAGATCGGCAAGGCCGGCTACGTGACCGGACCGG
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Barnett, S.W., Megede, J., Greer, C. and Selby, M. Expression of HIV polypeptides and production
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Corporation; Emeryville, CA
Location/Qualifiers
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genetic immunization
Patent: WO 0232943-A 174 25-APR-2002
GOVERNMENT OF THE UNITED STATES (US) AX427936 Sequence 174 from Patent AX427936 Huang, Y. and Nabel, G.J. Modifications of hiv env, synthetic construct synthetic construct other sequences; artificial sequences Location/Qualifiers
1. 9788
/organiam="synthetic construct"
/mol_type="unassigned DNA"
/db xref="taxon:35630"
/note="plasmid pVR1012x/s containg GI:21538023 9788 bp : WO0232943. gag, and pol DNA enhance linear immunogenicity PAT 20-JUN-2002

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Score 192.4; DB 6 Pred. No. 4.8e-163; D; Mismatches 181;

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pVR1012x/s containing

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	1022 GCGTGCCCCTGGACGAGGACTTCCGCAAGTACACCGCCTTCACCATCCCCAGCATCAACA 1081	B &
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1970 CCGAGACCTICTACCGIGGACCGCCCAACCGCGAGACCAAGCTGGGCAAGGCCGGCTAACGCCGAGACCAAGCTGGGCAAGGCCGGCTAACGCCGAGACCAAGCTGGGCAAGGCCGGCTAACGCCGAGACCAAGCTGGGCAAGGCCGGCTAACGCCGGGTGAGACCAAGCTGGGCAAGGCCGGCTAACGCCGAGACCAAGCTGGGCAAGGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCGGCTAACGCCCGGCTAACGCCCGGCTAACGCCGGCTAACGCCCGGCTAACGCCCGGCTAACGCCCGGCTAACGCCCGGCTAACGCCCGGCTAACGCCGGCTAACGCCCGGCTAACGCCCGGCTAACGCCCGGCTAACGCCCGGCTAACGCCCGGCTAACGCCCGAGACCAACGCCCGGCTAACGCCCGGCTAACGCCCGGCTAACGCCCGGCTAACGCCCGGCTAACGCCCGGCTAACGCCCGGCTAACGCCCGGCTAACGCCCGGCTAACGCCCGAGACCAACGCCCGAGACCAACGCCCGGCTAACGCCCGGCTAACGCCCGAGACCAACGCCCGAGACCAACGCCCGAGACCAACGCCCGAGACCAACGCCCGAGACCAACGCCCGAGACCAACGCCCGAGACCAACGCCCGAGACCAACGCCCGAGACCAACGCCCGAGACCAACGCCCGAGACCAACGCCCGAGACCAACGCCCGAGACCAACGCCCGAGACCAACGCCCGAGACCAACGCCCGAGACCAACGCCCGAGACCAACGCCCAACGCCCGAGACCAACGCCCAACGCCCGAGACCAACGCCCGAGACCAACGCCCGAGACCAACGCCCAACGCCCAACGCCCAACGCCCAACGCCCAACGCCCAACGCCCAACGCCCAACGCCAACACAACA	902 TCCGCGAGCTGAACAAGCGCACCCAGGACTTCTGGGAGGTGCAGCTGGGCATCCCCCACC 961	4a VQ
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	662 CCCTGAACTTCCCCATCAGCCCCATCGAGACCGTGCCCGTGAAGCTGAAGCCCGGCATGG 721	9d Q
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1670 GGAGGTANGARCHUTANGARCCTUTTANGARCCAGAGAGGGCANGTANGGCAGGCCAGGAGAAGGAAGGAAGGAAGGAAGGAAGGA	542 TGCGCCAGTACGAGATCCTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTGC 601 -	B 8
	482 TGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAGG 541	B 8
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Oy 1550 AGAGGCCGAGCTGGAGCTGGCGAGAATCCTGGCGCGAGCCGGTGCACGGCG 1609	90 GCCAGCTGTGCAAGCTGCTGCGCGGCGCCAAGGCCCTGACCGACATCGTGCCCCTGACCG		1370 ACAAGTIGGACCGTGCAGCCCATCGACCTGCCGAGAAGGAGAGGTGGACCGTGAACGACA	16 CCGACAAGAAGCACCAGAAGGAGCCCCCTTCCTGCCCATCGAGCTGCACCCCG 	OY 1256 AGCACCGCCCAAGATCGAGGAGCTGCGCAAGCACCTGCTGCGCTGGGGCTTCACCACCC 1315	OY 1202 AGATCGTGATCTACCAGGCCCCCCTGTACGTGGGCAGCGACCTGGAGATCGGCC 1255	OY 1142 CCAGCATCTTCCAGAGCAGCATGACCAAGATCCTGGAGCCCTTCCGCGCCCGCC	QY 1082 ACGAGACCCCCGGCATCCGCTACCAGTACAACGTGCTGCCCCAGGGCTGGAAGGGCAGCC 1141	Oy 1022 GCGTGCCCTGGACGAGGAGCATTCCGCAAGTACACCCCTTCACCATCCCCAGCATCAACA 1081	962 3923	Oy 902 TCCGCGAGCTGAACAAGCGCACCCAGGACTTCTGGGAAGGTGCAGCTGGGCATCCCCACC 961	OY 842 ACACCCCGTGTTCGCCATCAAGAAGAAGACACCAAGTGGCGCAAGCTGGTGGACT 901	Oy 782 TCTGCGAGAGAAGGAGGAGAGGGCAAGATCGCCCAAGATCGGCCCCGAGAACCCCCTACA 841	Oy 722 ACGGCCCAAGGTGAAGCAGTGGCCCCTGACCGAGAAGATCAAGGCCCTGACCGCCA 781	Oy 662 CCCTGAACTTCCCCATCAGCCCCATCGAGACCGTGCCCGTGAAGCTGAAGCCCGGCATGG 721	Oy 602 TGATCGGCCCCACCCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGCA 661	Oy 542 TGCGCCAGTACCAGATCCTGATCGAGATCTTGCGGCAAGAGGCCATCGGCACCGTGC 601

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CCGAGCTGCAGGCCATCCAGCTGGCCCTGCAGGACAGCGGCAGCGAGGTGAACATCGTGA		2090 5063	B 8
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Gapop 10.0 , Gapext 1.0
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Copyright (c) 1993 - 2005 Compugen Ltd.
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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97.8	97.8	97.8	97.9	98.3	98.3	98.8	98.8	99.1	99.1	99.1	99.1	99.2	99.2	99.2	99.4	99.4	100.0	100.0	Query Match
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ADC13236	ADC13266	ACA03548	ADC13234	ADM73764	ABL39959	ADC13265	ACA03547	ADC13279	ACA03591	ADC13232	ADC13231	ADM73765	ABL39960	ADC13230	ADC13264	ACA03546	ADM73766	ABL39961	ID
Adc13236 DNA of HI	DNA	Aca03548 Synthetic	Adc13234 DNA of HI	Adm73764 HIV-1 pol	Abl39959 Synthetic	Adc13265 DNA of HI	Aca03547 Synthetic	Adc13279 DNA of HI	Aca03591 Synthetic	Adc13232 DNA of HI	Adc13231 DNA of HI	Adm73765 HIV-1 pol	Abl39960 Synthetic	Adc13230 DNA of HI	Adc13264 DNA of HI	Aca03546 Synthetic	Adm73766 HIV-1 pol	Abl39961 Synthetic	Description

The present invention describes expression cassettes comprising a polynucleotide sequence encoding a polypeptide comprising immunogenic type C polypeptides. The expression cassettes comprise any of the HIV type C sequences encoding Gag, Pol, Vif, Vpr, Tat, Rev, Vpu, Env or Ne

or Nef

VIΗ

New polynucleotides encoding antigenic HIV Type C polypeptides, useful in applications including DNA immunization or generation of packaging cell lines, particularly in gene therapy.

WPI; 2002-154920/20.

Claim 1; Fig 10; 233pp; English.

ALIGNMENTS

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RESULT 1
ABL39961
Human immunodeficiency virus type C; antigenic HIV type C protein; immunogenic; immunisation; gag; pol; vif; vpr; tat; rev; vpu; env; nef; immunostimulant; gene therapy; gene; ds.
                                                                                                                                                                                                                                                                 Synthetic construct PR975YMWM SEQ ID NO:32.
                                                                                                                                                                                                                                                                                                 ABL39961;
                                                                                                                                                                                                                                                                                                                 ABL39961 standard; DNA; 2457
                                                                                                                                            05-JUL-2000; 2000US-00610313
                                                                                                                                                          05-JUL-2001; 2001WO-US021241.
                                                                                                                                                                           17-JAN-2002.
                                                                                                                                                                                                          Synthetic.
                                                                                                                                                                                                                  Human immunodeficiency virus; type C
                                                                                                     Zur Megede J,
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                                                                                                                     (CHIR ) CHIRON CORP.
(UYST-) UNIV STELLENBOSCH.
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                                                                                                     Barnett SW,
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841 AACACCCCGTGTTCGCCATCAAGAAGAAGACAGCACCCAAGTGGCGCAAGCTGGTGGAC 900 	781 ATCTGCGAGAGATGGAGAAGGAGGGCAAGATCACCAAGATCGGCCCGAGAACCCCTAC 840	721 GACGGCCCAAGGTGAAGCAGTGGCCCCTGACCGAGGAGAAGATCAAGGCCCTGACCGCC 780	661 ACCCTGAACTTCCCCATCAGCCCCATCGAGACCGTGCCCGTGAAGCTGAAGCCCGGCATG 720	601 CTGATCGGCCCACCCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGC 660	541 GTGCGCCAGTACGACCAGATCCTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTG 600	481 ATGAGCCTGCCCGGCAAGTGGAAGCCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAG 540	421 GGCGGCCAGATCAAGGAGGCCCTGCTGGACACCGGCGCCGACGACACCGTGCTGGAGGAG 480 	361 GGCACCCTGAACTTCCCCCAGATCACCCTGTGGCAGCGCCCCTGGTGAGCATCAAGGTG 420	301 AGCCGCGAGCTGCAGGTGCGCGGCGACAACCCCCGCAGCGAGGCGGCGGCGGCGCGAGCGCCAG 360	241 TTCCCCAGGGCAAGGCCGGGGATTCCCCAGCGAGCAGAACGGCGCAACAGCCCCACC 300	181 GGCCACCAGATGAAGGACTGCACCGAGGCCAGGCCAACTTCTTCCGCGAGGACCTGGCC 240	121 CACATCGCCCGCAACTGCCGCCCCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGAAGAG 180	61 CGCAGCAACTTCAAGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGC 120 	1 GTCGACGCCACCATGGCCGAGGCCATGAGCCAGGCCACCAGCGCCAACATCCTGATGCAG 60	rry Match 100.0%; Score 2457; DB 6; Length 2457; It Local Similarity 100.0%; Pred. No. 1.1e-295; ches 2457; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	equence 2457 BP; 566 A; 837 C; 754 G; 300 T; 0 U; 0 Other;	herapy and DNA immunisation applications. ABL39942 to ABL40054 and BB06204 to ABB06215 represent sequences used in the exemplification of he present invention	 (I) have immunostimulant activity and can be used in gene therapy. The HIV type C polymucleotides are useful in applications including DNA immunisation, generation of packaging cell lines, and production of HIV Type C proteins. The polymucleotides are particularly useful in gene
B &) B &) B &)	B 8	A 40	. B &	B &	5 8 8) B () B 4	Q B 4	S B 8	§ § §) B 8) B &	 ?	8	B &
1921 CCCCTGGTGAAGCTGTGGTACCAGCTGGAGAAGGCCCATCATCGGCGAGACCTTC 1980	1861 TGGTTGGACCGACTACTGGCAGGCCACCTGGATCCCCGAGGTGGGAGTTCGTGAACACCCCC 1861 TGGTTGGACCGACTACTGGCAGGCCACCTGGATCCCCGAGTGGGAGTTCGTGAACACCCCC	1801 GTGATCTGGGGCAAGACCCCCAAGTTCCGGCCATCCAGAAGGAGACCCTGGGAAGACCCTGGGAAGACCCCCAAGTTCCGCCCATCCAGAAGGAGACCCTGGGAAGACC	1741 CACACCANGACGIGAAGCAGCIGACGAGCGCGIGCAGAAGATCGCCATGGAGAGCATC	1681 ATCTACCAGGAGCCCTTCAAGAACCTGAAGACCGGCAAGTACGCCAAGATGCGCACCGCC	1621 CCCAGCAAGGACCTGGCCGAGATCCAGGAGCAGGACCACGACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTGGACCTACCAGTACAGTAGAGTAGAGTAGAGAGTAGAGAGTAGAGAGAG	1561 CTGGAGCTGGCCGAGAACCGCGAGATCCTGCGCGAGCCCGTGCACGGCGTGTACGACGAGATCCTGCGCGAGACCCGTGCACGGCGTGTACGACGAGATCCTGCGCGAGACCCGTGCACGGCGTGTACTACGAC	1501 AAGCTGCTGCGCGCCCAAGGCCCTGACCGACATCGTGCCCCTGACCGAGGAGGCCGAG	1441 GIOGENERIC IMPRE INGGENERATE INGGENERATE INCOCCUGENTI CHRISTIC CHARGE INGGENERATE I	1381 GTGCAGCCCATCGAGCTGCCCGAGAAGGGAGACCTGGACCGTGAACGACATCCAGAAGCTG 1381 GTGCAGCCCATCGAGCTGCCCGAGAAGGAGAGCTGGACCGTGAACGACATCCAGAAGCTG 1381 GTGCAGCCCATCGAGCTGCCCGAGAAGGAGAGCTGGACCGTGAACGACATCCAGAAGCTG	1321 AAGAAGCACCAGAAGGACCCCCCTTCCTGCCCATCGAGCTGCACCCCGACAAGTGGACC	1321 BAGBAGGAGGAGGAGGAGGTGCGCGCTGCTGCTGCAGGACTAGAGAAGAAGTGGAAGATCGAGGAGAAGATGGAGGAGGAGGAGGAGGAGGAGGAGGAGG	1201	1191 CCCAGCATCTTCCAGAGCAGCATGACCAGAGCCCTGGGAGCCCTTCCGCGCACCCCCCCAGCACCCCC 1141	1081 AACGAGACCCCCGGCATCCGCTACCAGTACCAGTCCTGCCCCAGGGCTGGAAAGGGCAGC 1081 AACGAGACCCCCGGCATCCGCTACCAGTACAACGTGCTGCCCCAGGGCTGGAAGGGCAGC	1021 AGCGTGCCCCTGGACGAGGACTTCCCGCAAGTACACCGCCTTCACCATCCCCAGCATCAAC 1021 AGCGTGCCCCTGGACGAGGACTTCCGGCAAGTACACCGCCTTCACCATCCCCAGCATCAAC	961	961 CCCGCCGGCCTGAAGAAGAAGAAGAGCGTGACCGTGCTGGACGTGGGCGACGCCTACTTC	901 TTCCGCGAGCTGAACAAGCGCACCCAGGACTTCTGGGAGGTGCAGCTGGGCATCCCCCAC 960

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HIV-1 polynucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADM73766 standard; DNA;
                                                                                         New expression cassette comprising a polynucleotide sequence encoding an HIV Pol polypeptide, useful in eliciting an immune response, in DNA immunization, generating of packaging cell lines or in producing HIV Type C proteins.
                                                                                                                                                                                                                                                                                                                           (MEGE/)
(BARN/)
(ENGE/)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human immunodeficiency virus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-JUL-2001; 2001US-00899575
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                                                Claim
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) BARNETT S W.
) ENGELBRECHT S.
) RENSBURG E J V.
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                                          polynucleotide sequence encoding an HIV Pol polypeptide. The invention also relates to a recombinant expression system for use in a host cell comprising an expression cassette, where the polynucleotide sequence further comprises control elements capable of driving expression in the selected host cell, a cell comprising an expression cassette where the polynucleotide sequence further comprises control elements compatible with the expression in the cell and a composition for generating an immunological response, comprising an expression cassette. The expression cassette and the methods of the invention are useful in eliciting an immune response, in DNA immunisation, in generation of packaging cell lines and in producing HIV Type C proteins. This sequence represents an HIV-1 polynucleotide of the invention.
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Sequence 2457 BP; 566 A; 837 C; 754 G; 300 T; 0 U; 0 Other;

Matches Query Match Best Local Similarity 2457; ۳ GTCGACGCCACCATGGCCGAGGCCATGAGCCAGGGCCACCAGCGCCAACATCCTGATGCAG 100.0%; ilarity 100.0%; Conservative (0; Score 2457; DB 12; Pred. No. 1.1e-295; 0; Mismatches 0; Indels Length 2457 <u>,</u> Gaps 60 0

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481 ATGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCAGCGGCGGCATCGGCGGCTTCATCAAG ATGAGCCTGCCCGGCAAGTGGAAGCCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAG 540 540

541 GTGCGCCAGTACGAGCAGATCCTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTG 600

밁 S 밁 5

GACGGCCCCAAGGTGAAGCAGTGGCCCCTGACCGAGGAGAAGATCAAGGCCCCTGACCGCC

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781 721

ATCTGCGAGGAGATGGAGAAGGAGGGCAAGATCACCAAGATCGGCCCCGAGAACCCCCTAC

840 780 780

The invention relates to an expression cassette comprising

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              TGGTGGACCGACTACTGGCAGGCCACCTGGATCCCCGAGTGGGAGTTCGTGAACACCCCC
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31-AUG-2001; 2001US-0316860P.
16-JAN-2002; 2002US-0349728P.
16-JAN-2002; 2002US-0349793P.
16-JAN-2002; 2002US-0349871P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Immunogenic HIV polypeptide; human immunodeficiency virus; HIV; vaccine; gene therapy; packaging cell line; humoral immune response; cellular immune response; gene delivery vector; DNA immunisation; ds.
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WPI; 2003-221602/21

8 뮍 Ś 밁 S 문

synthetic polynucleotides encoding antigenic HIV type B and/or type a

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Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        polypeptides, useful as immunogenic compositions or vaccines for generating humoral or cellular immune responses against HIV in a subject, especially humans.
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              AACTTCCCCATCAGCCCCATCGAGACCGTGCCCGTGAAGCTGAAGCCCGGCATGGACGGC
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New expression cassette comprising a polynucleotide sequence encoding polypeptide including an HIV Gag, Env, Int, Nef, p15RnaseH, Pol, Tat, Prot, or Rev polypeptide, useful for immunization, or generating packaging cell lines.

Disclosure; Fig 40; 301pp; English

The invention relates to a novel expression cassette comprising a polynucleotide sequence encoding a polypeptide including an HIV Gag, Env, Int, Nef, piSRnaseH, Pol, Tat, Prot, or Rev polypeptide: The novel expression cassette can be used to treat HIV type C by gene therapy or used in the development of a vaccine. The gene delivery vector is administered intramuscularly, intramucosally, intransally, subcutaneously, intradermally, transdermally, intraveginally, subcutaneously, intradermally, transdermally, intraveginally, orally or intravenously. The expression cassette is useful for immunisation, generating packaging cell lines and producing HIV polypeptides. This polynucleotide sequence represents the DNA of an HIV Type C related sequence of the invention.

2445 BP; 562 A; 835 C; 751 G; 297 T; 0 U; 0 Other;

Length

2445

GCCCGCAACTGCCGCGCCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGGCCAC AACTTCAAGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGCCACATC AACTTCAAGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGCCACATC GCCACCATGGCCGAGGCCATGAGCCAGGCCAGCGAGCGCAACATCCTGATGCAGCGCAGC GCCCGCAACTGCCGCGCCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGGCCAC GCCACCATGGCCGAGGCCATGAGCCAGGCCACCAGCGCCAACATCCTGATGCAGCGCAGC 99.4%; ilarity 100.0%; Conservative (0, Score 2443.4; DB 10; Pred. No. 5.3e-294; 0; Mismatches 1; I: Indels 0 Gaps 180 186 126 120 60 0

CTGAACTTCCCCCAGATCACCCTGTGGCAGCGCCCCTGGTGAGCATCAAGGTGGGCGGC GAGCTGCAGGTGCGCGGCGACAACCCCCCGCAGCGAGGCCGGCGGCGAGCGCCAGGGCACCC GGCCCCACCCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGCACCCTG CAGTACGACCAGATCCTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTGCTGATC CTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAGGTGCGC CAGATCAAGGAGGCCCTGCTGGACACCCGGCGCCGACGACACCCGTGCTGGAGGAGGATGAGC CTGAACTTCCCCCAGATCACCCTGTGGGAGAGCCCCCTGGTGAGGATCAAGGTGGGCGGC GAGCTGCAGGTGCGCGGCGACAACCCCCCGCAGCGAGGCCGGCGCGAGCGCCAGGGCACC CAGGGCAAGGCCCGCGAGTTCCCCCAGCGAGCAGAACCGCGCCAACAGCCCCACCAGCCGC CAGGGCAAGGCCCGCGAGTTCCCCCAGCGAGCAGCAGACCGCCCAACAGCCCCCACCAGCCGC CAGATGAAGGACTGCACCGAGCGCCAGGCCAACTTCTTCCGCGAGGACCTGGCCTTCCCC GGCCCCACCCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGCACCCTG CAGTACGACCAGATCCTGATCGAGATCTGCGGCAAGAAGGCCCATCGGCACCGTGCTGATC CTGCCCGGCAAGTGGAAGCCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAGGTGCGC CAGATCAAGGAGGCCCTGCTGGCCACCGGCGCCGACGACACCGTGCTGGAGGAGGATGAGC CAGATGAAGGACTGCACCGAGCCCAAGGCCAACTTCTTCCGCGAGGACCTGGCCTTCCCC 480 420 426 360 300 306 246 999 600 909 540 546 486 366 240 660

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Query Match
Best Local Similarity
Matches 2437; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New expression cassette comprising a polynucleotide sequence encoding polypeptide including an HIV Gag, Env, Int, Nef, pl5knaseH, Pol, Tat, Prot, or Rev polypeptide, useful for immunization, or generating packaging cell lines.
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                                                                                                                                                                                Human immunodeficiency virus type C; antigenic HIV type C protein; immunogenic; immunisation; gag; pol; vif; vpr; tat; rev; vpu; env;
                                                                                                                                                                                                                                                                 15-MAY-2002
                  05-JUL-2001; 2001WO-US021241
                                                                                                                                                              immunogenic; immunisation; gag; pol; vif
immunostimulant; gene therapy; gene; ds.
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Best Local Similarity
Matches 2454; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention describes expression cassettes comprising a polynucleotide sequence encoding a polypeptide comprising immunogenic HIV type C polypeptides. The expression cassettes comprise any of the HIV type C sequences encoding Gag, Pol, Vif, Vpr, Tat, Rev, Vpu, Env or Nef (I). (I) have immunostimulant activity and can be used in gene thorapy. The HIV type C polynucleotides are useful in applications including DNA immunisation, generation of packaging cell lines, and production of HIV Type C proteins. The polynucleotides are particularly useful in gene therapy and DNA immunisation applications. ABL39942 to ABL40054 and ABB06204 to ABB06215 represent sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New polynucleotides encoding antigenic HIV Type C polypeptides, useful applications including DNA immunization or generation of packaging cell lines, particularly in gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
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                                       GTGCGCCAGTACGACCAGATCCTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTG
                                                                                                                                                   GGCGGCCAGATCAAGGAGGCCCTGCTGGACACCGGCGCCGACGACACCGTGCTGGAGGAG
                                                                                                                                                                                                                                                                                                     TTCCCCCAGGGCAAGGCCCGCGAGTTCCCCCAGCGAGCAGAACCGCGCCCAACAGCCCCCACC
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                      GTGCGCCAGTACGACCAGATCCTGATCGAGATCTGCGGCAAGAAGAAGGCCATCGGCACCGTG
                                                                                    ATGAGCCTGCCCGGCAAGTGGAAGCCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAG
                                                                                                        ATGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAG
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99.6%;
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Pred. No. 4.1e-293;
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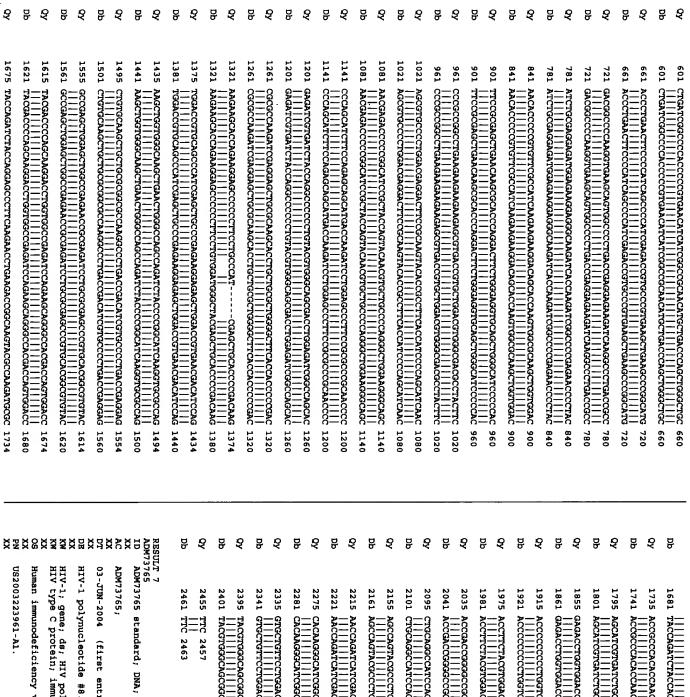
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AACCAGATCATCGAGCAGCTGATCAAGAAGGAGAAGGTGTACCTGAGCTGGGTGCCCGCC
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                    TACGTGGGCAGCGGCCCTAGGATCGATTAAAAGCTTCCCGGGGCTAGCACCGGTGAA
                                                   GTGCTGTTCCTGGACGGCATCGATGGCGGCATCGTGATCTACCAGTACATGGACGACCTG
                                                                                                      CACAAGGGCATCGGCGGCAACGAGCAGATCGACAAGCCTGGTGAGCAAGGGCATCCGCAAG
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ADM73765 standard; DNA; 2463 ВÞ

03-JUN-2004 (first entry

HIV-1; gene; ds; HIV pol; immune response; DNA immunisation; HIV type C protein; immunostimulant.

Human immunodeficiency virus 1.

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Best Local Similarity 99.4
Matches 2454; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to an expression cassette comprising a polynucleotide sequence encoding an HIV Pol polypeptide. The invention also relates to a recombinant expression system for use in a host cell comprising an expression cassette, where the polynucleotide sequence further comprises control elements capable of driving expression in the selected host cell, a cell comprising an expression cassette where the polynucleotide sequence further comprises control elements compatible with the expression in the cell and a composition for generating an immunological response, comprising an expression cassette. The expression cassette and the methods of the invention are useful in eliciting an immune response, in DNA immunisation, in generation of packaging cell lines and in producing HIV Type C proteins. This sequence represents an HIV-1 polynucleotide of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 2463 BP; 567 A; 835 C; 759 G; 302 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New expression cassette comprising a polynucleotide sequence encoding HIV Pol polypeptide, useful in eliciting an immune response, in DNA immunization, generating of packaging cell lines or in producing HIV in the control of the co
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(ENGE/)
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RENSBURG E J V.
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BARNETT S W.
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                                                                                                                                                                                 GCCACCAGATGAAGGACTGCACCGAGCGCCAGGCCAACTTCTTCCGCGAGGACCTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                   CACATCGCCCGCAACTGCCGCGCCCCCCGCAAGAAGGGGCTGCTGGAAGTGCGGCAAGGAG
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                       GGCGGCCAGATCAAGGAGGCCCTGCTGGACACCCGGCCCGACGACACCCGTGCTGGAGGAG
                                                                                                   GGCACCCTGAACTTCCCCCCAGATCACCCTGTGGCAGCGCCCCCTGGTGAGCATCAAGGTG
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expression cassette; HIV Gag; Env; Int; Nef; p15RnaseH; Pol; Tat; Prot; Rev; HIV type C; gene therapy; vaccine; immunisation; HIV; ds.
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immunodeficiency virus

WO2003004620-A2

05-JUL-2001; 2001US-0303192P 31-AUG-2001; 2001US-0316860P 16-JAN-2002; 2002US-0349871P 05-JUL-2002; 2002WO-US021420

CHIRON CORP. STELLENBOSCH

WPI, 2003-221593/21. Zur Megede J, Barnett SW, Lian Ķ Engelbrecht Ś Van Rensburg 멷

New expression cassette comprising a polynucleotide sequence encoding polypeptide including an HIV Gag, Env, Int, Nef, p15knaseH, Pol, Tat, Prot, or Rev polypeptide, useful for immunization, or generating packaging cell lines.

Disclosure; Fig 7; 301pp; English

The invention relates to a novel expression cassette comprising a polynucleotide sequence encoding a polypeptide including an HIV Gag, Env, Int, Nef, piSRnaseH, Pol, Tat, Prot, or Rev polypeptide. The novel expression cassette can be used to treat HIV type C by gene therapy or used in the development of a vaccine. The gene delivery vector is administered intramuscularly, intramucosally, intransaslly, subcutaneously, intradermally, transdermally, intraveginally, subcutaneously, intravenously, transdermally, intraveginally, orally or intravenously. The expression cassette is useful for immunisation, generating packaging cell lines and producing HIV polypeptides. This polynucleotide sequence represents the DNA of an HIV Type C related sequence of the invention.

Sequence 3930 BP; 889 A; 1365 C; 1214 G; 462 T; 0 U; 0 Other;

밁 र् 문 Ś 밁 Ş Query Match Best Local Similarity Matches 2436; Conserv 1607 1487 1547 134 74 14 AGGGCCCCAAGCGCATCAAGTGCTTCAACTGCGGCAAGGAGGGCCACATCGCCCGCA 133 TGGCCGAGGCCATGAGCCAGGCCACCAGCGCCAACATCCTGATGCAGCGCAGCAACTTCA 73 ACTGCCGCGCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGGCCACCAGATGA ACTIGCCGCGCCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGGCCACCAGATGA AGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGCCACATCGCCCGCA TCGCCGAGGCCATGAGCCAGGCCACCAGCGCCAACATCCTGATGCAGCGCAGCAACTTCA 99.1%; ilarity 99.9%; Conservative Score 2434.8; DB 10; Pred. No. 5.7e-293; 0; Mismatches 2; I Indels Length 0 Gaps 1546 1666 1606 193

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31-AUG-2001;
16-JAN-2002;
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Immunogenic HIV polypeptide; human immunodeficiency virus; HIV; vaccine; gene therapy; packaging cell line; humoral immune response; cellular immune response; gene delivery vector; DNA immunisation; ds.
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31-AUG-2001; 2001US-0316860P.
16-JAN-2002; 2002US-0349728P.
16-JAN-2002; 2002US-034973P.
                                                                                                                                                                                                                                            05-JUL-2002; 2002WO-US021421
                                                                                                                                                                                                                                                                         WO2003004657-A1
                                                                                                                                                                                                                                                                                                                               Synthetic DNA ecoding immunogenic HIV peptide
                                                                                                                                                                                                                                                                                                                                                                          ACA03591 standard; DNA; 5184
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generating especially New synthetic polynucleotides encoding antigenic HIV type B and/or type (polypeptides, useful as immunogenic compositions or vaccines for generating humoral or cellular immune responses against HIV in a subject. humans.

Example 1; Fig 79; 262pp; English.

The invention describes a synthetic polynucleotide encoding 2 or more immunogenic HIV polypeptides, where at least 2 of the polypeptides are derived from different HIV subtypes. The polynucleotide is useful for immunisation, generation of packaging cell lines, or production of HIV polypeptides. The polynucleotide and its encoded proteins are useful as immunogenic compositions or vaccines for generating humoral or cellular immune responses against HIV in a subject, or for inducing neutralising antibodies against HIV. The gene delivery vector comprising the polynucleotide is also useful for DNA immunisation of, or for generating an immune response (e.g. a humoral or cellular immune response) in, a subject such as a mammal, particularly a human. This sequence encodes a human immunodeficiency virus immunogenic peptide

Sequence 5184 BP; 1139 A; 1852 C; 1610 G; 583 T; 0 U; 0 Other;

99.1%;

DB 8;

Length

5184;

S 밁 S 문 Ś 밁 5 문 Query Match Best Local S Matches 2436 Local Similarity 2741 14 AGGACTGCACCGAGCGCAAGGCCAACTTCTTCCGCGAGGACCTGGCCTTCCCCCAGGGCA ACTIGCCGCCCCCCCCAAGAAGGCCTGCTGGAAGTGCGGCAAGGAGGGCCACCAGATGA ACTGCCGCGCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGGCCACCAGATGA AGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGCCACATCGCCCGCA AGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGCCCACATCGCCCGCA TCGCCGAGGCCATGAGCCAGGCCACCAGCGCCAACATCCTGATGCAGCGCAGCAACTTCA TGGCCGAGGCCATGAGCCCAGGCCACCAGCCCCAACATCCTGATGCAGCGCAGCCAACTTCA Conservative Score 2434.8; Pred. No. 5.5e 0; Mismatches 0 i.5e-293; ies 2; Indels 0 Gaps 2920 2800 253 193 2860 133 0

RESULT 10 ACA03591

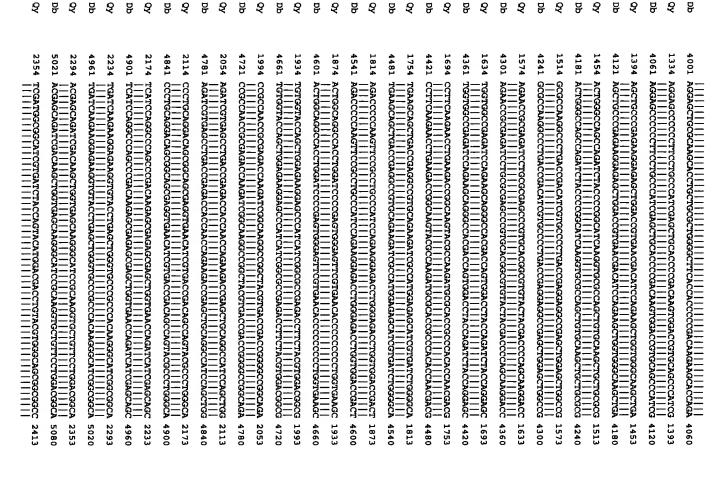
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1154 AGAGCAGCATGACCAAGATCCTGGAGCCCTTCCGCGCCACCCCGACAACCCCGAGATCT 1213	974 AGAAGAAGAAGAAGAACGTGCTGCCCCAGGGCTGGACGCCAGCATCTTCAGCGTGCCCTTGG 1033	794 TGGAGAAGGAGGGCAAGATCACCAAGATCGGCCCCGAGAACACCCCCGTGT 853	614 CCCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGACCTGAACTTCC 673		254 AGGCCCGCGAGTTCCCCAGCGAGCAGAACCGCGCCAACAGCCCCACCAGCCGAGCTGC 313
Db 4961 TGATCGAGATTAAAAGCTTCCCGGGGGTACCGGT 2451 Oy 2294 ACGAGCAGATCGACAGAGCTTCCCGGGGGACCTGGACGGCACGGCC 2153	2114 4781 2114 4841 Q 4901 H-P	1874 4601 1934 4661 1994 4721	4421 1754 4481 1814 4541	Db 4241 GCGCCAAGACCCTGAACCACGACAATCCTGCCCCAAGAAGACCCGAAGCACGAAGCCCGAAGAACCCCCAAGAACCCCGAAGAA	Oy 1334 AGGAGCCCCCTTCCTGCCCATCGAGCTGCACCCCGACAAGTGGACCGTGCAGCCCATCG 1393

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RESULT 11
ADC13279
ID ADC13279
ID ADC13
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XX DNA c
XX DNA c
XX Expre
KW expre
KW Rev;
XX Human

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Matches
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                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to a novel expression cassette comprising a polynucleotide sequence encoding a polypeptide including an HIV Gag, Env, Int, Nef, p15RnaseH, Pol, Tat, Prot, or Rev polypeptide. The novel expression cassette can be used to treat HIV type C by gene therapy or used in the development of a vaccine. The gene delivery vector is administered intramuscularly, intramacesally, intranasally, subcutaneously, intradermally, transdermally, intravaginally, subcutaneously, intradermally, transdermally, intravaginally, intravaginally, or intravenously. The expression cassette is useful for immunisation, generating packaging cell lines and producing HIV polypeptides. This polynucleotide sequence represents the DNA of an HIV Type C related sequence of the invention.
                                                                                                                                                                                                                                                                                                                                                    Sequence 5184 BP; 1139 A; 1852 C; 1610 G; 583 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Fig 55; 301pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New expression cassette comprising a polynucleotide sequence encoding polypeptide including an HIV Gag, Env, Int, Nef, p15knaseH, Pol, Tat, Prot, or Rev polypeptide, useful for immunization, or generating packaging cell lines.
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16-JAN-2002; 2002US-0349871P.
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                                                                                                                            AGAGCAGCATGACCAAGATCCTGGAGCCCTTCCGCGCCCGCAACCCCGAGATCGTGATCT
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RESULT 12
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31-AUG-2001;
16-JAN-2002;
16-JAN-2002;
16-JAN-2002;
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; 2001US-0316860P.
; 2002US-0349728P.
; 2002US-0349793P.
; 2002US-0349871P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a subject
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New synthetic polynucleotides encoding antigenic HIV type B and/or type polypeptides, useful as immunogenic compositions or vaccines for generating humoral or cellular immune responses against HIV in a subject especially humans.

Example 1; Fig 35; 262pp; English.

The invention describes a synthetic polynucleotide encoding 2 or more immunogenic HIV polypeptides, where at least 2 of the polypeptides are derived from different HIV subtypes. The polynucleotide is useful for immunisation, generation of packaging cell lines, or production of HIV polypeptides. The polynucleotide and its encoded proteins are useful as immunogenic compositions or vaccines for generating humoral or cellular immune responses against HIV in a subject, or for inducing nautralising polynucleotide is also useful for DNA immunisation of, or for generating polynucleotide is also useful for DNA immunisation of, or for generating an immune response (e.g. a humoral or cellular immune response) in, a subject such as a mammal, particularly a human. This sequence encodes a immunodeficiency virus immunogenic peptide

Sequence 2457 BP; 564 A; 835 C; 758 G; 300 T; 0 U; 0 Other;

Length

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                                                                                        Query Match
Best Local Similarity
Matches 2447; Conserv
              61
CGCAGCAACTTCAAGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGC
                                                      GTCGACGCCACCATGGCCGATGACCCAGGCCACCAGCGCCAACATCCTGATGCAG
                                        GTCGACGCCACCATGGCCGAGGCCATGAGCCAGGCCACCAGCGCCAACATCCTGATGCAG
                                                                                          Conservative
                                                                                                    98.8%;
                                                                                        0;
                                                                                        Score 2428.6; DB 8;
Pred. No. 3.6e-292;
0; Mismatches 4;
                                                                                          Indels
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AACCAGATCATCGAGCAGCTGATCAAGAAGGAGAAGGTGTACCTGAGCTGGGTGCCCGC	1141 CCCAGCATCTTCCAGAGCAGCATGACCAAGATCCTGGAGCCCTTCCGCGCCCGCC	유 왕
	1081 AACGAGACCCCCGGCATCCGCTACCAGTACAACGTGCTGCCCCAGGGCTGGAAGGGCAGC 1140	B 8
	C 1080	B 8
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ACCITICIACE INSACESCE CONCERNA ACCITICATOR	901 TTCCGCGAGCTGAACAAGCGCACCCAGGACTTCTGGGAGGTGCAGCTGGGCATCCCCCAC 960	<u>ል</u>
A CCCCCCCCTGTTGAAGCTGTGGACACACTTGAGAAAGAAGCACCCATCATCGGGGCCCAGAAACAACCCCCCCTATCATCGGGGCCCAGAACACACCATCATCGGGGCCCAGAACCCCCCCC	841 AACACCCCGGTGTTCGCCATCAAGAAGAAGGACAGCACCCAAGTGGGGCAAGCTGGTGGAC 900	В 8
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O AGCATCCIONIC CONCENTRATA CON	721 GACGGCCCCAAGGTGAAGCAGTGGCCCTGACCGAGGAGAAGATCAAGGCCCTGACCGCC 780	B &
,	661 ACCCTGAACTTCCCCATCAGCCCCATCGAGACCGTGCCCGTGAAGCTGAAGCCCGGCATG 720	A 4
n 12 0	601 CTGATCGGCCCCACCCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGC 660	g Q
615 TACGAC UCANG-MANGAC LIGHT GOCCOMONT CANGAC ACGGC ANGAC CAGGGC CAGGAC CAGGGC CAGGAC CAGGGC CAGGAC CAGAC C	541 GTGCGCCAGTACGACCAGATCCTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTG 600	B 8
513 GCCGAGCTGGAGCTGGCCGAGAACCGCCGAGATCCTGCGCGAGCCCGTGCACGGCGTGTAC 1	481 ATGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAG 540	9d 6y
#95 CLOSTACATICATECATACATA A CACACACATATACATA A CACACACATACAT	421 GGCGGCCAGATCAAGGAGGCCCTGCTGGACACCGGCGCGACGACGACGACGACGAGGAG 480	В Q
435 ANGCTGGTGGGCANGCTGANCTIGAGCTAGCCAGATCTACCCGGCATCANGGTGCGCCAG	361 GGCACCCTGAACTTCCCCCAGATCACCCTGTGGCAGCGCCCCCTGGTGAGCATCAAGGTG 420	B 8
TOTAL CONTROL OF THE PROPERTY OF THE PROPERT	301 AGCCGCGAGCTGCAGGTGCGCGACCAACCCCCGCAGCGAGGCGAGGCGCCGAGCGCCAG 360	당 왕
AMAMAGE CHAMMAGE CONTROL CON	241 TTCCCCCAGGGCAAGGCCCGCGAGTTCCCCCAGCGAGCAGAACCGCGCCAACAGCCCCACC 300	B 8
	181 GGCCACCAGATGAAGGACTGCACCGAGCGCCAGGCCCACTTCTTCCGCGAGGACCTGGCC 240	dy dq
OI GAGATCATCATCATCATCATCATCATCATCATCATCATCATCA	121 CACATCGCCCGCAACTGCCGCCCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAG 180	9 Q
1201 GAGATCGTGATCTACCAGGCCCCCCTGTACGTGGGCAGCCAGC	61 CGCAGCAACTTCAAGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGC 120	g

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Query Match 98.8%; Score 2428.6; DB 10; Length 2457; Best Local Similarity 99.6%; Pred. No. 3.6e-292; Best Local Similarity 99.6%; Pred. No. 3.6e-292; Matches 2447; Conservative 0; Mismatches 4; Indels 6; Gaps 1; 1 GTCGACGCCACCATGGCCGATGAGCCAGGCCACCAGCGCCAACATCCTGATGCAG 60	ror immunisation, generating packaging cell lines and producing HIV polypeptides. This polynucleotide sequence represents the DNA of an HIV Type C related sequence of the invention. Sequence 2457 BP; 564 A; 835 C; 758 G; 300 T; 0 U; 0 Other;	administered intramuscularly, intramucosally, intransally, subcutaneously, intradermally, transdermally, intraveginally, intraveginally, intravectally, orally or intravenously. The expression cassette is useful	polynucleotide sequence encoding a polypeptide including an HIV Gad, Env, Int, Nef, pl5RnaseH, Pol, Tat, Prot, or Rev polypeptide. The novel expression cassette can be used to treat HIV type C by gene therapy or used in the development of a vergine The care delivery vector is	Disclosure; Fig 41; 301pp; English. The invention relates to a novel expression cassette comprising a	New expression cassette comprising a polynucleotide sequence encoding a polypeptide including an HIV Gag, Env, Int, Nef, p15RnaseH, Pol, Tat, Prot, or Rev polypeptide, useful for immunization, or generating packaging cell lines.	Zur Megede J, Barnett SW, Lian Y, Engelbrecht S, Van Rensburg EJ; WPI; 2003-221593/21.			16-JAN-2003. 05-JUL-2002; 2002WO-US021420.		DNA of HIV construct p2Pol-opt-YM_C SEQ ID NO 44. expression cassette; HIV Gag; Env; Int; Nef; p15RnaseH; Pol; Tat; Prot; Rev; HIV type C; gene therapy; vaccine; immunisation; HIV; ds.	ADC13265; 18-DEC-2003 (first entry)	RESULT 13 ADC13265 ID ADC13265 standard; DNA; 2457 BP. XX	2401 TACGTGGGCAGCGGCCCTAGGATCGATTAAAAGCTTCCCGGGGCTAGCACCGGT 2457	TACGTCGGCCAGCGCCGCCTTACGGATGGATGGATGATATCGGCGGCGCGCGAGTGACGACGTTTTGGACGGCGATGGAGGGGATGGAGGGGATGGAGGGCGGATGGAGGGGGATGGAGGGGGATGGAGGGGGAGGGGGAGGGGGG	
DB 42 DB 43	}	QY db	B &	B 8	B &	B &	B 8	B 6	B &	β δ	B &	ል	B 8	B 8	ρ <i>Q</i>	Qy Db
1021 AGCGTGCCCCTGGACGAGGACTTCCGCAAGTACAACGTGCTGCCCAGGGCTGGAAGGGCAGC 1140 1081 AACGAGACCCCCGGCATCCGCTACCAGTACAACGTGCTGCCCAGGGCTGGAAGGGCAGC 1140 1081 AACGAGACCCCCGGCATCCGCTACCAGTACAACGTGCTGCCCCAGGGCTGGAAGGGCAGC 1140 1081 AACGAGACCCCCCGGCATCCGCTACCAGTACAACGTGCTGCCCCAGGGCTGGAAGGGCAGC 1140	CCCGCCGGCCTGAAGAAGAAGAAGAAGACGTGACCGTGCTGGACGTGGGCGACGCCTACTTC	901 TTCCGCGAGCTGAACAAGCGCACCCAGGACTTCTGGGAAGGTGCAGCTGGGCATCCCCCAC 960	841 AACACCCCCGTGTTCGCCATCAAGAAGAACAGCACCAAGTGGCGCAAGCTGGTGGAC 900	781 ATCTGCGAGGAGATGGAGAAGGAGGGGAAGATCACCAAGATCGGCCCCGAGAACCCCTAC 840	721 GACGGCCCCAAGGTGAAGCAGTGGCCCCTGACCGAGGAGAAGATCAAGGCCCTGACCGCC 780	661 ACCCTGAACTTCCCCATCAGCCCCATCGAGACCGTGCCCGTGAAGCTGAAGCCCGGCATG 720	601 CTGATCGGCCCCACCCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGC 660	541 GTGCGCCAGTACGACCAGATCCTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTG 600	481 ATGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAG 540	421 GECGGCCAGATCAAGGAGGCCCTGCTTGGACACCGGCGCCGACGACACCGTTGCTTGGAGGAG 480	361 GGCACCCTGAACTTCCCCCCAGATCACCCTGTGGCAGCGCCCCCTGGTGAGCATCAAGGTG 420	301 AGCCGCGAGCTGCAGGTGCGCGGCGACCAACCCCCGCAGCGAGGCGCCGAGCGCCGAGCGCCAG 360	241 TTCCCCCAGGGCAAGGCCCGCGAGTTCCCCAGCGAGCAGAACCGCGCCAACAGCCCCACC 300	181 GGCCACCAGATGAAGGACTGCACCGAGGCCCAGGCCAACTTCTTCCGCGAGGACCTGGCC 240	121 CACATCGCCCGCAACTGCCGCGCCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAG 180	61 CGCAGCAACTTCAAGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGC 120

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AACCAGATCATCGAGCAGCTGATCAAGAAGGAGGAGGAGGTGTACCTGAGCTGGGTGCCCGCC
                                                              CTGCAGGCCATCCAGCTGGCCCTGCAGGACAGCGGCAGCGAGGTGAACATCGTGACCGAC
                                                                                                                                                                                                                  ACCTTCTACGTGGACGGCGCCAACCGCGAGACCAAGATCGGCAAGGCCGGCTACGTG
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                                                                                                                                         TACGTGGGCAGCGGCGGCGCTAGGATCGATTAAAAGCTTCCCCGGGGCTAGCACCGGT 2451
                                                                                                                                                                                                                                CACAAGGGCATCGGCGACAACGATCGACAAGCTGGTGAGCAAGGGCATCCGCAAG
                                                                                                                                                                                                                                                                                     standard; DNA;
                                                                                                                        TACGTGGGCAGCGGCGGCCCTAGGATCGATTAAAAGCTTCCCGGGGCTAGCACCGGT 2457
                                                                                                                                                                                                GTGCTGTTCCTGGACGGCATCGATGGCGGCATCGTGATCTACCAGTACATGGACGACGTG 2394
                                                                                                                                                                                                                                                            CACAAGGGCATCGGCGGCAACGAGCAGATCGACAAGCTGGTGAGCAAGGGCCATCCGCAAG
                                                                                                                                                                             GTGCTGTTCCTGGACGGCATCGATGGCGGCATCGTGATCTACCAGTACATGGACGACCTG
(first entry)
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RESULT 14
ABL39959
ID ABL39959
AC ABL39
AC ABBOO
AC ABBOO Synthetic Human immunodeficiency virus type C; antigenic HIV type C immunogenic; immunisation; gag; pol; vif; vpr; tat; rev; v immunostimulant; gene therapy; gene; ds. Synthetic construct PR975(+) SEQ ID NO:30. Human immunodeficiency virus; type C. C protein; vpu; env; nef;

WO200204493-A2

05-JUL-2000; 2000US-00610313 05-JUL-2001; 2001WO-US021241 (CHIR) CHIRON CORP. (UYST-) UNIV STELLENBOSCH

New polynucleotides encoding antigenic HIV Type C polypeptides, useful applications including DNA immunization or generation of packaging cellines, particularly in gene therapy. ij

WPI; 2002-154920/20. Zur Megede J,

Barnett SW, Engelbrecht S,

Van Rensburg

Claim 1; Fig 8; 233pp; English.

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The present invention describes expression cassettes comprising a polypurclectide sequence encoding a polypoptide comprising immunogenic HIV type C polypoptides. The expression cassettes comprise my of the HIV type C sequences encoding Gag, Pol, Vif, Vpr, Tat, Rev, Vpu, Env or Nef (I). (I) have immunostimulant activity and can be used in gene therapy. The HIV type C polynucleotides are useful in applications including DNA immunisation, generation of packaging cell lines, and production of HIV Type C proteins. The polynucleotides are particularly useful in gene therapy and DNA immunisation applications. ABL39942 to ABL40054 and ABB06204 to ABB06215 represent sequences used in the exemplification of the present invention

Sequence 2469 BP; 571 A; 833 C; 761 G; 304 T; 0 U; 0 Other;

Query Match Best Local Similarity Matches 2451; Conserv Conservative 98.3%; **;** Score 2415.4; DB 6 Pred. No. 1.5e-290; 0; Mismatches 6; DB 6; Indels Length 2469 12; Gaps 2

2149 ACCGACAGCCAGTACGCCCTGGGCATCATCCAGGCCCAGCCCGACAAGAGCGAGAGAGA		AACGAGAC	, ,
2089 ACCGAGCTGCAGGCCATCCAGCTGGCCCTGCAGGACAGCGGCAGCGAGGTGAACATCGTG	GCCTTCACCATCCCCAGCATCAAC 1080	1021 AGCGTGCCCTGGACGAGGACTTCCGCAAGTACACCGCCTTCACCATCCCCCAGCATCAAC	
2029 TACGTGACCGACCGGGGCCGGCAGAAGATCGTGAGCCTGACCGAGACCAGCAGAGG 	SCTGGACGTGGGCGACGCCTACTTC 1020	961 CCCGCCGGCCTGAAGAAGAAGAAGAGAGCGTGACCGTGGTGGACGTGGGCGACGCCTACTTC	
	SGAGGTGCAGCTGGGCATCCCCCAC 960	901 TTCCGCGAGCTGAACAAGCGCACCCAGGACTTCTGGGAGGTGCAGCTGGGCATCCCCCAC	
	ACCAAGTGGCGCAAGCTGGTGGAC 900	841 AACACCCCGTGTTCGCCATCAAGAAGAAGACAGCACCAAGTGGCGCAAGCTGGTGGAC	
	JAAGATCGGCCCGAGAACCCCTAC 840	781 ATCTGCGAGGAGATGGAGAAGGGGGCAAGATCACCAAGATCGGCCCCGAGAACCCCTAC	
	9GAGAAGATCAAGGCCCTGACCGCC 780 	721 GACGGCCCAAGGTGAAGCAGTGGCCCCTGACCGAGGAGAAGATCAAGGCCCTGACCGCC	
	SCCGTGAAGCTGAAGCCCGGCATG 720	661 ACCCTGAACTTCCCCCATCAGCCCCATCGAGACCGTGCCCGTGAAGCTGAAGCCCGGCATG	
	AACATGCTGACCCAGCTGGGCTGC 660	601 CTGATCGGCCCACCCCCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGC	
	CTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTG 600	541 GTGCGCCAGTACGACCAGATCCTGATCGAGATCTGCGGCAAGAAGACGCCATCGGCACCGTG	
	TCGGCGGCATCGGCGGCTTCATCAAG 540	481 ATGAGCCTGCCCGGCAAGTGGAAGCCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAG	
	CTGCTGGACACCGGCGCGACGACACCGTGCTGGAGGAG 480	421 GGCGGCCAGATCAAGGAGGCCCTGCTGGACACCGGCGCGACGACACCGTGCTGGAGGAG	
	SCGCCCCTGGTGAGCATCAAGGTG 420	361 GGCACCCTGAACTTCCCCCAGATCACCCTGTGGCAGCGCCCCCTGGTGAGCATCAAGGTG	
	AGCGAGGCCGGCGCCGAGCGCCAG 360	301 AGCCGCGAGCTGCAGGTGCGCGGCGACAACCCCCGCAGCGAGGCGAGCGCCGAGCGCCAG	
	SCAGAACCGCGCCAACAGCCCCACC 300	241 TTCCCCCAGGGCAAGGCCCGCGAGTTCCCCCAGCGAGCAGAACCGCGCCCAACAGCCCCACC	
	AACTICITCGGGAGGACCTGGCC 240	181 GGCCACCAGATGAAGGACTGCACCGAGGCCAGGCCAACTTCTTCCGCGAGGACCTGGCCCGAGCCCAGCCCAACTTCTTCCGCGAGGACCTGGCCC	
	RECTIGETGGAAGTGCGGCAAGGAG 180	121 CACATCGCCCGCAACTGCCGCGCCCCCCCGCAAGAAGGGCCTGCTGGAAGTGCGGCAAGAAGAAG	
	TOCTTCAACTGCGGCAAGGAGGC 120	61 CGCAGCAACTTCAAGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAAGGAGGGC 	

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The invention relates to an expression cassette comprising a polynucleotide sequence encoding an HIV Pol polypeptide. The invention also relates to a recombinant expression system for use in a host cell comprising an expression cassette, where the polynucleotide sequence further comprises control elements capable of driving expression in the selected host cell, a cell comprising an expression cassette where the polynucleotide sequence further comprises control elements compatible with the expression in the cell and a composition for generating an immunological response, comprising an expression cassette. The expression cassette and the methods of the invention are useful in eliciting an immune response, in DNA immunisation, in generation of packaging cell lines and in producing HIV Type C proteins. This sequence represents an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HIV-1; gene; ds; HIV pol; immune response; DNA immunisation; HIV type C protein; immunostimulant.
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) ENGELBRECHT S.
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문 왕	용 성	유왕	문 &	음 성	문 왕	B 8	당
y 2449 GGTGAATTC 2457 b 2461 GGTGAATTC 2469	NY 2389 GACCTGTACGTGGGCAGCGGCGGCGCCTAGGATCGATTAAAAGCTTCCCGGGGGCTAGCACC 2448	NY 2329 CGCAAGGTGCTGTTCCTGGACGGCATCGATGGCGGCATCGTGATCTACCAGTACATGGAC 2388	Y 2269 CCCGCCCACAAGGGCATCGGCGGCAAGCAGATCGACAAGCTGGTGAGCAAGGGCATC 2328	YY 2209 CTGGTGAACCAGATCATCGAGCAGCTGATCAAGAAGGAGAAGGTGTACCTGAGCTGGGTG 2268	Y 2149 ACCGACAGCCAGTACGCCCTGGGCATCATCCAGGCCCAGCCCGACAAGAGCGAGAGAGA	yy 2089 ACCGAGCTGCAGGCCATCCAGCTGGGCCAGGACAGCGACGAGGGAGG	D 2041 TACGTGACCGACCGGGGCCGGCAGAAGATCGTGAGCCTGACCGAGACCACCAACCA
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Search completed: December 30, 2005, 08:57:08 Job time : 1300.51 secs

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CL967755 OBIFCC015
CX099623 RECM0260
AX103647 Zea may8
CL977399 OBIFCC0025
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CZ247380 AIAA-aaf3
BM321451 vockefell
CM922203 EDCAR29TR
CX159167 FCAS04056
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ALIGNMENTS

ORIGIN	source	FEATURES	שט א	ISM S	VERSION C	z 0
/organism="Zea mays" /mol_type="genomic DNA" /strain="w22 (ACX, bzl-mg)" /cultivar="UniformMu" /db xref="taxon:4577" /clone="0280349-08A1-C03" /clone="0280349-08A1-C03" /clone="Vector: TOPO-PCR4; DNA flanking Mu transposon /note="vector: TOPO-P	1330	Location/Qualifiers	clade; Panicoideae; Andropogoneae; Zea. 1 (bases 1 to 330) 1 (bases 1 transposon insertions from the UniformMu maize population (2003) 1 (bases 1 transposon insertions from the UniformMu maize population (2003) 1 (bases transposon insertion site in UniformMu maize population (2003) 2 (bases transposon insertion site.)	_	CL293849 CL293849.1 GI:42541978	0280349-08A1-C03 UniformMu MuTAIL Library Zea mays genomic clone 0280349-08A1-C03, genomic survey sequence.

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Qy 189 GATGAAGGACTGCACCGAGCGCCAGGCCAACTTCTTCCGCGAGGACCTGGCCTTCCCCCA	Query Match 4.1%; Score 100; DB 10; Length 2886; Best Local Similarity 42.8%; Pred. No. 1.2e-07; Matches 700; Conservative 0; Mismatches 915; Indels 21;		FEATURES Location/Qualifiers 1. 2886 /organism="Oryza sativa (indica cultivar-group)" /mol type="genomic DNA"	Fax: 86-10-80488676 Email: chenchen@genomics.org.cn Rice genomic sequence. Class: exon-transed	Department of Bioinformatic Beijing Institute of Genomics Chinese Academy of Sciences, Beijing 101300, China Tel: 86-10-80481559	TITLE An analysis of transcriptional regulation of the rice genome its comparison to Arabidopsis Unpublished (2004) COMMENT Contact: Chen Chen	2896) 2896) Chen, C., Liu, X., Su, N., Li, L., Wang, X., Zhang, X., Bao, J., Sun, D., Zhao, H., Yuan, end, X.W. and Wang, J.	NISM Oryza sativa () Bukaryota; Viri Spermatophyta; Bhrhartoideae;	VERSION CL967755.1 GI:52390149 VERSION CL967755.1 GI:52390149 KEYWORDS GSS.	z	Db 30 GATGGCCCAAAAGTAAGG 13	OY 721 GACGGCCCAAGGTGAAG 738	Qy 661 ACCCTGAACTTCCCCATCAGCCCCATCGAGACCGTGCCCGTGAAGCTGAAGCCCGGCATG	149	Db 209 GTAAGACÁGTÁTGÁTGÁTGÁTGGTACCCÁTAGÁAÁTCTGTGGGCÁTÁÁAAGCTÁTAGGTAGG Ov 601 CTGATCGGCCCCACCCCGTGAACATAGÁATCGGCGGATAÁAACGCTÁTAGGTACCCAGGTA	QY 541 GTGCGCCAGTACGACCAGATCCTGATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTG	OY 481 ATGAGCCTGCCCGGCAAGTGGAAGCCCAAGATGATCGGCGGCATCGGCGGCTTCATCAAG	329	211; Conservative 0; Mismatches 106; Indels 1; 421 ggcGgcCagarCaaGgaGgCGCTgCTGCTGCACGaCGCCGaCGACGACGACGACGACGACGACGACGACGACGACGACGAC	5.6%; Score 136.4; imilarity 66.4%; pred. No. 3.1e
248 (V)		Qy 1146 Db 1179	ОУ 1086 G рь 1119 G	Оу 1026 G рь 1059 G	Qy 966 Ct	and Qy 906 Db 939	Cao, M., Qy 846 Cu	Qy 786 Db 819	Qy 726 Cl Db 759 Cl	2004 Qy 66	Qy 606 Cy Db 639 CJ	Db 579 C	720 Db 519 31 Qy 546	91 Qy 486	150 Qy 426	600 Db 399	540 Db 33 210 Qy 36	270 Oy 30	1; Qy 24 480 Db 27	Db 219 G
1286 CARGATICGRIGHAGUTIGCGAAGATGAGCACGCGAGAAGAAGAAGGTGCACACGCTGAT 1346	1206 CGTGATCTACCAGGCCCCCTGTACGTGGGCAGCGACCTGGAGATCGGCCAGCACCGCGC 1265	CATCITCCAGAGCAGCATGACCAAGATCCTGGAGCCCTTCCGCGCCCGCAACCCCGAGAT 1205	GACCCCGGCATCCGCTACCAGTACAACGTGCTGCCCCAGGGCTGGAAGGGCAGCCCCAG 1145	GCCCCTGGACGAGGACTTCCGCAAGTACACCGCCTTCACCATCCCCAGCATCAACAACGA 1085	CGGCCTGAAGAAGAAGAGAGCGTGACCGTGCTGGACGTGGGCGACGCCTACTTCAGCGT 1025	CGAGCTGAACAAGCGCACCCAGGACTTCTGGGAGGTGCAGCTGGGCATCCCCCACCCCGC 965	CCCCGTGTTCGCCATCAAGAAGAAGAAGACACCAAGTGGCGCAAGCTGGTGGACTTCCG 905	CGAGGAGATGAGAAGGAGGGCAAGATCACCAAGATCGGCCCCGAGAACCCCCTACAACAC 845	CCCCAAGGTGAAGCAGTGGCCCCTGACCGAGGAGAAGATCAAGGCCCTGACCGCCATCTG 785		CATCGCCACCGCGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGCACCCT 665	cgccgggcaggcgrcrrcrccgggrccaccgrcaagcaggcaagarcaaggccgrcgr 638	ceaccicecnicaaceageceacecicacicecicaceagecearececicicaacearececereares		CCAGATCAAGGAGGCCCTGCTGGACACCGGCGCCGACGACGACGTGCTGGAGGAGAATGAG 485)9 GACCAAGGTGCTCAGGGACGGGAAAATGGCAGGAGCAGGACGGTCCATCCTCGTTCCCGG 458	19 CATCGAGGAGAACAATGCCGGGAACGCCGCGCGCGCGCTCATGGCCGGCC		9 GGACTGGCAGGAGTTCCCCAGCGAGCAGAACCGCGCCAACAGCCCCACCCA	219 GGTCATGGAGGCCGCCGCCATCATGGCCATCGTCCTCGCCAACGGCGGCGGCAGGCCGCC 278

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RESULT 3
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                                                                                                                                                                                                       JOURNAL
PUBMED
                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                          Oryza sativa (indica cultivar-group)
ISM Oryza sativa (indica cultivar-group)
ISM Oryza sativa (indica cultivar-group)
Elkaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzaae; Oryza.

ICE 1 (bases to 1781)
ORS Zhang,J., Feng,O., Jin,C., Qiu,D., Zhang,L., Xie,K., Yuan,D.,
Han,B., Zhang,Q. and Wang,S.
Features of the expressed sequences revealed by a large-scale analysis of ESTs from a normalized cDNA library of the elite indica rice cultivar Minghui 63
MNAL Plant J. 42 (5), 772-780 (2005)
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                                                                                       Hauzhong Agricultural Univer
Wuhan 430070, China
Tel: 86-27-87287094
Fax: 86-27-87287092
Email: shipingwang@hotmail.c
                                                                                                                                                  Contact: Wang S
Contact: Wang S
National Key Laboratory of Crop (
National Key Laboratory of Crop (
                                                                                                                                                                                                                                                                                                                                                                                                                                                          CX099623 1781 bp mRNA linear EST 03-JUN-2005 RECm0260 A normalized whole-life-cycle cDNA library of rice Oryza sativa (indica cultivar-group) cDNA clone EI057014, THREEB09, EI057004, EI062D05, BI027I14, EI070G16, EI08 5', mRNA sequence.
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CX099623.1 GI:66912775
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/organism="Oryza
/mol_type="mRNA"
/strain="indica"
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Query Match
Best Local Similarity
Matches 447; Conserv
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CATCCCCCACCCCGCCGGCCTGAAGAAGAAGAAGAGCGTGACCGTGCTGGACGTGGGCGA 1010
                                                                                                             GCTGGTGGACTTCCGCGAGCTGAACAAGCGCACCCAGGACTTCTGGGAGGTGCAGCTGGG
                                                                                                                                                                      GTACCTCGACGAGAAGACCATCTTCCACCTCAACCCCTCGGGCCGCTTCGTCATCGGCGG
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/db_xref="taxon:39946"
/clone="BI057014, THREEB09,
BI070G16, BI08"
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/dev_stage="whole-life-cycle"
/lab_host="E. coli DH10B"
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If you are interested in getting corresponding physical clones, these are publicly available from ZmDB and may be found by BLAST searching at MSL, maizemap.org; ZmDB, www.zmdb.iastate.edu; TIGR, www.rtigr.org; or NCBI, www.ncbi.nlm.nih.gov. When the source of the maize cDNA sequences is either Virginia Walbot, Stanford or Pat Schnable, Iowa State, then clones may be requested from ZmDB: www.zmdb.iastate.edu.
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/note-"this sequence is part of a project of EST assemblies resulting from the application of public contigs to seed DuPont contigs; this resource was assembled by DuPont as part of a collaboration for t
                                                                                                                                     /organism="Zea mays"
/mol_type="mRNA"
/db_xref="MaizeGDB:6:
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CL973991 3069 bp DNA linear GSS OSIFCC025416 Oryza sativa Express Library Oryza sativa cultivar-group) genomic, genomic survey sequence.
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Department of Bioinformatic
Beijing Institute of Genomics
Chinese Academy of Sciences, Be
Tel: 86-10-80481559
Fax: 86-10-80488676
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Oryza sativa (indica cultivar-group)
Oryza sativa (indica cultivar-group)
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.

1 (bases 1 to 306)
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Rice genomic sequence.
Class: exon-trapped.
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                                                    GGCGGCATCGGCGGCTTCATCAAGGTGCGCCAGTACGACCAGATCCTGATCGAGATCTGC
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|/db_xref="taxon:39946"
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L Unpublished (2004)
Contact: Chen Chen
Department of Bioinformatic
Beljing Institute of Genomics
Chinese Academy of Sciences, Beijing 101300, China
Tel: 86-10-80488596
571
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Oryza sativa (indica cultivar-group)
Oryza sativa (indica cultivar-group)
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.

1 (bases 1 to 1398)
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Rice genomic sequence.
Class: exon-trapped.
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nilarity 45.9%;
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|mol type="genomic DNA"
|/db_xref="fetaxon:39946"
|/clone_lib="Oryza sativa Express Library"
|/note="Oryza sativa exon trapped genomic sequence
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1 (bases 1 to 743)

1 (bases 1 to 743)

Mitreva, M., McCarter, J.P., Pape, D., Ritter, E., Tsag Mitreva, M., McCarter, J.P., Dante, M., Meyer, R., Ronko, I., Martin, J., Wylie, T., Dante, M., Meyer, R., Waterston, R.H., Clifton, S.W. and Wilson, R.

Waterston, R.H., Clifton, S.W. and Wilson, R.
Washington University in St. Louis Washington University School of Medicine Washington University School of Medicine 4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108 Tel: 314 286 1800 Fax: 314 286 1810 Email: nematode@watson.wustl.edu Genomic DNA provided by John Hawdon (mtmjmh@gwumc.edu)
                                                                                                                                                                                                                                              Ancylostoma caninum
Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida;
Ancylostomatoidea; Ancylostomatidae; Ancylostomatinae;
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CZ247380.1 GI:59632821
                                                                                                                  Unpublished (2004)
Contact: Mitreva M
                                                                                                                                                                                                                                                                                             Ancylostoma caninum (dog hookworm)
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                       CAACGACAACGACAACAACGACGACGACTACTACAACGACGACAACTACG
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sequenced by Washington University Genome Sequencing Center Class: {\tt shotgun}.
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GCTGGTGGGCAAGCTGAACTGGGCCAGCCAGATCTACCCCGGCATCAAGG 1486
                                                                                          GACCGTGCAGCCCATCGAGCTGCCCCGAGAAGGAGAGCTGGACCGTGAACGACATCCAGAA 1436
                                                                                                                                         CGÁCAACGÁCAACGÁCTÁCGÁCAACAACAACGACAACAACAACATCGÁCGACTÁCAÁCAA
                                                                                                                                                                                  CGACAAGAAGCACCAGAAGGAGCCCCCCTTCCTGCCCATCGAGCTGCACCCCGACAAGTG
                                                                                                                                                                                                                                   GCACCGCCAAGATCGAGGAGCTGCGCAAGCACCTGCTGCGCTGGGGCTTCACCACCCC
                                                                                                                                                                                                                                                                                                                              CCCCGAGATCGTGATCTACCAGGCCCCCCTGTACGTGGGCAGCGACCTGGAGATCGGCCA 1256
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/dev_stage="Adult"
/lab_host="GS10"
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|strain="Baltimore"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The analysis of 100 genes supports the grouping of three highly divergent amoebae: Dictyostelium, Entamoeba, and Mastigamoeba Proc. Natl. Acad. Sci. U.S.A. 99 (3), 1414-1419 (2002)
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Bapteste, B., Brinkmann, H., Lee, J.A., Moore, D.V., Sensen, C.W.,
Gordon, P., Durufle, L., Gaasterland, T., Lopez, P., Muller, M. and
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Mastigamoeba balamuthi
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The Rockefeller University
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GTTCCCGGCCGTCAACGTCAACGAC---TCTNTCACCAAGAGCAAGTTCGACAACATCTA
                                  CATCGTGACCGACAGCCAGTACGCCCTGGGCATCATCCAGGCCCAGCCCGACAAGAGCGA
                                                                                                                                                                                                                       CATCGGCGCCGAGACCTTCTACGTGGACGGCGCCGCCAACCGCGAGACCAAGATCGGCAA 2021
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                                                                        CGAGGAGACGACTGGCGTNATGAGGCTGTACCAGCTGCACCGCGACGGCAAGCTGCT
                                                                                                          CCAGAAGACCGAGCTGCAGGCCATCCAGCTGGCCCTGCAGGACAGCGGCAGCGAGGTGAA 2141
                                                                                                                                               GGTCCAGAAGGAGCAGCCCGGCTTCTGGCACAAGATCCTCCCCGAGATCCGCGGTGTCAG
                                                                                                                                                                                 GGCCGGCTACGTGACCGGACCGGGGCCGGCAGAAGATCGTGAGCCTGACCGAGACCACCAA 208:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   York Avenue, New York, NY 10021, tl: mmuller@rockvax.rockefeller.edu
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/mol_type="mRNA"

/strain="ATCC 30984"
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/clone_lib="Mastigamoeba
/note="syn: Phreatamoeba
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Pred. No. 4.2e-05;
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An analysis of transcriptional regulation of the rice genome and its comparison to Arabidopsis

Unpublished (2004)

Contact: Chen Chen

Department of Bioinformatic

Beijing Institute of Genomics

Chinese Academy of Sciences, Beijing 101300, China

Tel: 86-10-8048159

Fax: 86-10-80488676
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Oryza sativa (indica cultivar-group)
Oryza sativa (indica cultivar-group)
Ewkaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.

1 (bases 1 to 1941)
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CL971508.1 GI:52397596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: chenchen@genomics.org.
Rice genomic sequence.
                                                                                                                                                                                                            GATGGCCGGCTTCGAGGTCAACACGCTCGAGGCGGGGCTCGA
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GGCCACCAGATGAAGGACTGCACCGAGCGCCAGGCCAACTTCTTCCGCGAGGACCTGGCC
                                   AAGGTGGTGCCTGGCCCCGGCGACAAGCCGATGATCGTCGTCCAGTACAAGGGCGAGGAG
                                                                        CACATCGCCCGCAACTGCCGCGCCCCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAG
                                                                                                           TTGATTGGTAGGAGGTTCTCCGACCCGTCCGTGCAGAGTGACATGAAGCTATGGCCGTTC
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nilarity 42.5%;
Conservative
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/mol_type="genomic DNA"
/db_xref="taxon:39946"
/clone_lib="Oryza sativa E
/note="Oryza sativa exon t
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Gene discovery in the Acanthamoeba castellanii genome
Unpublished (2004)

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The Institute for Genomic Research (TIGR; www.tigr.org)
9712 Medical Center Drive, Rockville, MD 20850, USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGGTGCGCCAGCTGTGCAAGCTGCTGCGCGCGCGAAGGCCCTGACCGACATCGTGCCC 1542
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   CGCGCTCGTGGCCGGCGCAAGTACCGCGGCGAGTTCGAGGAGCGACTGAAGGCTGTGCT
                                                            CGGCGACAACCCCCGCAGCGAGGCCGGCGGCGAGCGCCAGGGCACCCTGAACTTCCCCCA 380
                                                                                                                            COTOCOGCOACOTOCCAACCTCCAGGACCGCCGCGTCATCGCGCTCGACATGGG
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                                                                                                                                                                                                                                                        3.3%;
llarity 43.9%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   shotgun.
                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone_lib="A.genomic DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Acanthamoeba
/mol_type="genomic DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /strain="Neff"
/db_xref="taxon:5755"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                     /note="Vector: pHOS2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      clone="EDCAR29"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GI:60228146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1060 bp DNA linear GSS 24-FEB castellanii, 6-8 kb library from total genomic DN castellanii genomic clone EDCAR29, genomic survey
                                                                                                                                                                                                                                                    Score 80.8; DB 10;
Pred. No. 0.0003;
0; Mismatches 497;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        castellanii,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  castellanii"
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REFERENCE
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CK159167/c
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JOURNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       115
                         Triticum aestivum

Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;

Spermatophyta; Magmoliophyta; Liliopsida; Poales; Poaceae;

pooideae; Triticeae; Triticum.

1 (bases 1 to 869)

Allard, F., Crosby, W.L., Danyluk, J., Eudes, F., Frick, M., Gaudet, D.,

Genswein, B., Graf, R., Gulick, P., Hrycan, L.D., Laroche, A.,

Links, M.G., McCarthy, B.L., Monroy, A., Muzak, I., Nilson, D.,

Penniket, C., Roach, J.L. and Sarhan, F.

Functional Genomics of Abiotic Stress In Wheat and Canola Crops
         Unpublished
                                                                                                                                                                                                                                                                                                                                                                              BST
                                                                                                                                                                                                                                                                                                                                                                                                          CK159167
CK159167.1 GI:38985053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mRNA sequence.
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                                                                                                                                                                                                                                                                                                                                        Triticum aestivum (bread wheat)
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aestivum FGAS:
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Triticum aestivum
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Best Local Similarity 44.9%;
Matches 305; Conservative
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Plate: Talt537 row: N column:
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Bioinformatics
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                                                                                              TTCACCATCCCCAGCATCAACAACGAGACCCCCGGCATCCGCTACCAGTACAACGTGCTG
                                                                                                                                                                                                                                                                            GACGTGGGCGACGCCTACTTCAGCGTGCCCCCTGGACGAGGACTTCCGCAAGTACACCGCC
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/cultivar="Wheat line PI 178383"
/db xref="taxon:4565"
/db xref="taxon:4565"
/lab_host="DH5 alpha"
/clone_llb="Triticum aestivum PGAS: Talt5"
/clone_llb="Triticum aestivum PGAS: Talt5"
/clone_TOrgan: Crown; Vector: pGEM-T; SSH (suppression subtractive hybridization) cDNA library from genotype pI178383 cold hardened at 2 C for 21 days and 49 days (equal amount of cDNA pooled together before subtraction, tester) and subtracted against genotype Norstar cold hardened at 2 C for 1 day (24 H) (driver). Modified Smart cDNA (Clontech)priming and non-directional cloning"
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Pred. No. 0.00033;
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Best Local Similarity
Matches 334; Conserv
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1764 GACCGAGGCCGTGCAGAAGATCGCCATGGAGAGCATCGTGATCTGGGGCAAGACCCCCAA 1823
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Genomic DNA provided by John Hawdon (mtmjmh@gwumc.edu) DNA sequenced by Washington University Genome Sequencing Cente: Class: shotgun.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mitreva, M., McCarter, J.P., Pape, D., Ritter, E., Tsaga
Ronko, I., Martin, J., Wylie, T., Dante, M., Meyer, R., M
Waterston, R.H., Clifton, S.W. and Wilson, R.
Genome Survey sequences from the parasitic nematode
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ancylostoma caninum
Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Strongylida;
Ancylostomatoidea; Ancylostomatidae; Ancylostomatinae; Ancylostoma.
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892 bp DNA linear GSS 10-FEB-2005
AIAA-aaf23g02.bl Ancylostoma caninum whole genome shotgun library
(AIAACSS 001) Ancylostoma caninum genomic, genomic survey sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Unpublished (2004)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 (bases 1 to 892)
Mitreva,M., McCarter,J.P.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: nematode@watson.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Mitreva M
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                                                                                            GATCCAGAAGCAGGGCCACGACCAGTGGACCTACCAGATCTACCAGGAGCCCTTCAAGAA 1703
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                                                         CGACGACACCAAGCACAACCACATCCACAACCACTTCGACGACACCGACGACTACTAGCT
                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                   /note="Vector: pOTW13; Site_1: BstX1; Site_2: BstX1; Ancylostoma caninum genomic DNA was randomly sheared, end-repaired and size fractioned to enrich for 2-4 kb fragments. Genomic DNA was provided by John Hawdon (mtm_nhægwumc.edu) at George Washington University. Sequencing by Washington University Genome Sequencing Center, St. Louis, MO."
                                                                                                                                                                                                                                                                                                                                                                                                                                       /clone_lib="Ancylostoma caninum whole genome shotgun
library (AIAAGSS 001)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /db_xref="taxon:29170"
/dev_stage="Adult"
/lab_host="GS10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /mol_type="genomic DNA"
/strain="Baltimore"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         organism="Ancylostoma
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                                                                                                                                                                                                                            3.3%;
46.5%;
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Pred. No. 0.00033;
0; Mismatches 379;
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POLYA=No.

ocation/Qualifiers

/organism="Mastigamoeba balamuthi" /mol type="mrN0" /strain="ATCC 3084" /db_xref="taxon:108607"

clone_lib="Mastigamoeba

balamuthi lambda ZAP II Library"

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RESULT 13
BM320864
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VERSION
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BM320864 1132 bp mRNA linear EST 03-JAN-2002 rockefeller.0.46 Mastigamoeba balamuthi lambda ZAP II Library Mastigamoeba balamuthi cDNA similar to ribosomal protein L5, mRNA
                                                                                                                                                           Proc. Natl. Acad. Sci.
                                                                                                                                                                                                                                              Bapteste, B., Brinkmann, H., Lee, J.A., Moore, D.V., Gordon, P., Durufle, L., Gaasterland, T., Lopez, P.,
                                                                                                                                                                                                                                                                                          Eukaryota; Pelobiontida, Mastigamoebidae; Mastigamoeba
1 (bases 1 to 1132)
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Mastigamoeba balamuthi
Eukaryota; Pelobiontida; Mastigamoebidae; Mastiga
1 (bases 1 to 1165)
Bapteste,E., Brinkmann,H., Lee,J.A., Moore,D.V.,
Gordon,P., Durufle,L., Gaasterland,T., Lopez,P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Laboratory of Biochemical Parasitology
The Rockefeller University
1230 York Avenue, New York, NY 10021, 1
Email: mmuller@rockvax.rockefeller.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The analysis of 100 genes supports the grouping of three highly divergent amoebae: Dictyostelium, Entamoeba, and Mastigamoeba Proc. Natl. Acad. Sci. U.S.A. 99 (3), 1414-1419 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Muller Miklos
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GACCGTGCCCGTGAAGCTGAAGCCCCGGCATGGACGGCCCCCAAGGTGAAGCAGTGGCCCCCT
                                  CGGCGACAAGAAGGAGCTCAACGCCGCGGTCCTCCGCAAGTACATCTTCGGCGGCCACGT
                                                                                                         GGGCATGTGCGACGGCGGCGTCAACGTCCCCCACAGCGAGACCCGCTTCGTCGGCTTCAA
                                                                                                                                                                          -- TGCTCGACGTCGGCCTGGTCCGCACCTCGACTGGCGCCCGCGTGTTCGCCGCCCTCAA
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                                                                    CGGCCGCAACATGCTGACCCAGCTGGGCTGCACCCTGAACTTCCCCCATCAGCCCCATCGA 689
                                                                                                                                      GATCTGCGGCAAGAAGGCCATCGGCACCGTGCTGATCGGCCCCACCCCCGTGAACATCAT
                                                                                                                                                                                                                                               CAACGGCGAGGACTACAACGTCGAGGAGCTCGACGACGGGCCCCGCCGCTTCAAGGCCC--
                                                                                                                                                                                                                                                                                  CACCGGCGCCGACGACACCGTGCTGGAGGAGATGAGCCTGCCCGGCAAGTGGAAGCCCAA
                                                                                                                                                                                                                                                                                                                                                                                       CTTCGGCGTCAAGCTCGGCCTGACCAACTACGCCGCCGCCTACGCCGACTGGCCTGCTGCT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Mastigamoeba balamuthi"
|mol_type="mRNA"
|strain="ATCC 30984"
|db_xref="reaxon:108607"
|clone lib="Mastigamoeba balamuthi lambda ZAP
|note="syn: Phreatamoeba balamuthi"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
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Pred. No. 0.0005;
D; Mismatches 506;
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Muller, M. an
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	PEATURES SOUICE	REFERENCE AUTHORS TITLE JOURNAL COMMENT	RESULT 15 CL982770 LOCUS DEFINITION ACCESSION VERSION KEYWORDS	\$ \text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tince{\text{\text{\text{\text{\text{\text{\text{\text{\text{\texicr{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\texicr{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tex{\tex
y Match J.2%; Score 79.6; DB 10; Length 1680; Local Similarity 41.9%; Pred. No. 0.0051; hes 612; Conservative 0; Mismatches 844; Indels 6; Gaps 2; 270 CAGCGAGCAGAACCGCCCAACAGCCCCAGCCGCGAGCTGCAGGTGCGCGGCGACAA 329	Helling Institute of Genomics Chinese Academy of Sciences, Beljing 101300, China Tel: 86-10-80481559 Fax: 86-10-80488676 Email: chenchen@genomics.org.cn Rice genomic sequence. Class: exon-trapped. Location/Qualifiers 11680 /organism="oryza sativa (indica cultivar-group)" /mol_type="genomic DNA" /db_xref="taxon:39946" /clone_lib="Oryza sativa Express Library" /note="oryza sativa exon trapped genomic sequences"		CL982770 OSIFSC049024 cultivar-grou CL982770 CL982770.1 G	
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